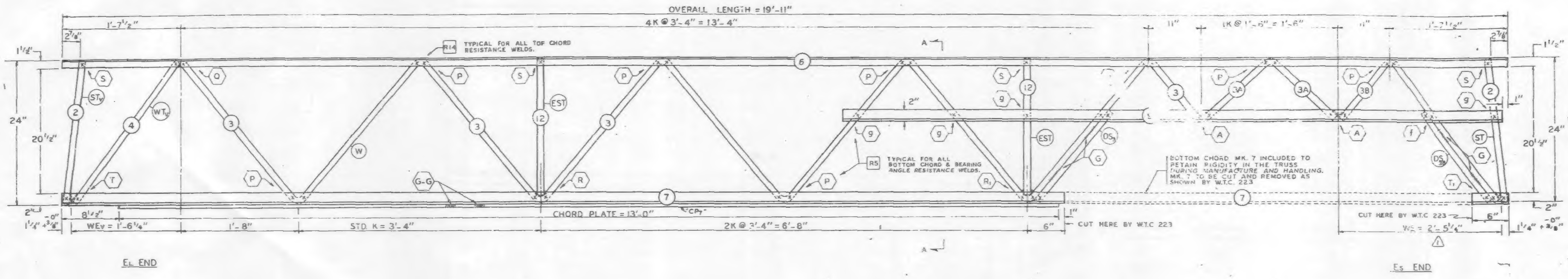
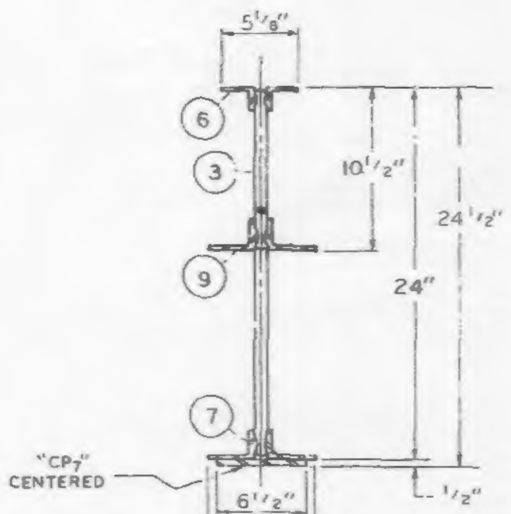
0600-0699
WTC1-131-LERA

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3 / 8"
DESIGN DEPTH	24"	± 1 / 4"
PANEL "K"	3'-4"	± 1 / 4"
WEB DEPTH	23 7/8"	± 1 / 4"
OVERALL LENGTH	19'-11"	± 3 / 8"





SECTION A-A

NO.	DATE	REVISION	BY
1	5-15-69	AS NOTED	G.D.C.

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (IIIIIII).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (A).
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST 291 & ST 293.
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R5].
SEE SHEET ST 281 FOR CHORD PLATE DETAILS.

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	BOTTOM CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH
24T10H - 1911	6	A242	2"x1 1/2"x.31"	19'-11"	7	A36	3"x2"x.33"	19'-11"

TRUSS DESIGNATION	MAIN WEB "W" MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	TRUSS DATA	
24T10H - 1911	3	A242	1.14	21'-8 3/8"	4 1/8K @ 3'-4" = 14'-3"		
	3A	A242	1.14	2'-4 3/4"	1K @ 1'-6" = 1'-6"		
	3B	A242	1.14	3'-8 1/4"	5/8K @ 3'-4" = 2'-6 1/2"		

TRUSS DESIGNATION	VERTICAL "EST" STRUT MK.	TYPE STEEL	PCS.	DIA.	LENGTH	CHORD PLATE MK.	TYPE STEEL	SIZE	LENGTH	DOUBLE STRUT MK.	TYPE STEEL	DIA.	LENGTH
24T10H - 1911	12	A242	2	1.14	1'-10 7/8"	CP7	A36	6 1/2"x1/2"	13'-0"	DS3	A242	1.14	1'-6 3/4"

ES END	TRUSS DESIGNATION	INCLINED "ST" STRUT MK.	TYPE STEEL	DIA.	LENGTH	WE	BEARING ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	DOUBLE STRUT MK.	TYPE STEEL	DIA.	LENGTH
	24T10H - 1911	2	A242	1.14	1'-11 3/4"	2'-5 1/4"	9	A36	3"x2"x.33"	9'-1 1/2"	DS3B	A242	1.14	1'-6 3/4"

EL END	TRUSS DESIGNATION	INCLINED "STv" STRUT MK.	TYPE STEEL	DIA.	LENGTH	WEv	WEB "WTv" MK.	TYPE STEEL	DIA.	LENGTH
	24T10H - 1911	2	A242	1.14	1'-11 3/4"	1'-6 1/4"	4	A242	1.14	2'-5 1/2"

REF. DRWGS.

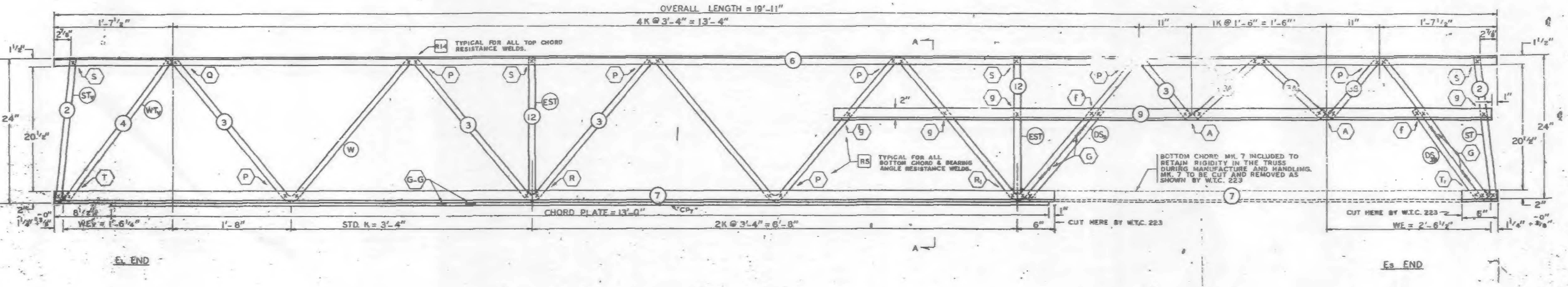
7-AB2-18	10-4-68
7-AB3-30	10-4-68
7-AB3-31	10-4-68
7-AB3-24	8-15-68
7-AB4-17.7	10-4-68
7-AB4-17.1	10-4-68
SA-124	1-6-68
7-AB2-1	1-6-69

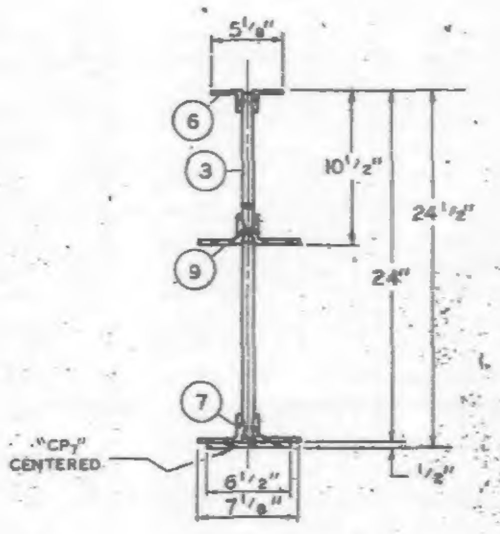
BRIDGING TRUSS DETAILS
[illegible] CENTER - N.Y.C.
[illegible] YORK AUTHORITY

BRIDGING TRUSS 24T10H x 19'-11" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATED BY [illegible] STEEL COMPANY
FABRICATED AT [illegible]
APPROVED FOR FABRICATION [illegible] DATE 6/4/69
APPROVED FOR FABRICATION DATE
FOR FABRICATOR
DETAILED BY A CARL WEBER
DESIGN DRAWING NO. 7-AB2-18
DRAWN BY: gdc DATE APRIL 14, 1969
CHECKED BY: T.M.CHURA DATE APRIL 14, 1969
FABRICATION CONT. NO. W.T.C. 221
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO. ST 210H

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3 / 8"
DESIGN DEPTH	24"	± 1 / 4"
PANEL "K"	3'-4"	± 1 / 4"
WEB DEPTH	23 7 / 8"	± 1 / 4"
OVERALL LENGTH	19'-11"	± 3 / 8"





SECTION A-A

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		VERTICAL "EST" STRUT					CHORD PLATE				DOUBLE STRUT			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			MK.	TYPE STEEL	PCS.	DIA.	LENGTH	MK.	TYPE STEEL	SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
24T10H - 1911	6	A242	2"x1 1/2"x.31"	19'-11"	7	A36	3"x2"x.33"	19'-11"	3 3A 3B	A242 A242 A242	1.14 1.14 1.14	[illegible]	[illegible]			12	A242	2	1.14	1'-10 7/8"	CP7	A36	6 1/2"x1/8"	13'-0"	DS2	A242	1.14	1'-8 3/4"

ES END	TRUSS DESIGNATION	INCLINED "ST" STRUT				WE	BEARING ANGLES				DOUBLE STRUT			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
	24T10H - 1911	2	A242	1.14	1'-11 3/4"	2'-6 1/2"	9	A36	3"x2"x.33"	9'-1 1/2"	DS	A242	1.14	1'-8 3/4"

EL END	TRUSS DESIGNATION	INCLINED "STV" STRUT				WEV	WEB "WTV"			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH
	24T10H - 1911	2	A242	1.14	1'-11 3/4"	1'-6 1/4"	4	A242	1.14	2'-5 1/2"

NO.	DATE	REVISION	BY

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. (IIIIIII).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (A).
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST 291 & ST 293.
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R5].
SEE SHEET ST 281 FOR CHORD PLATE DETAILS.

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

VOID

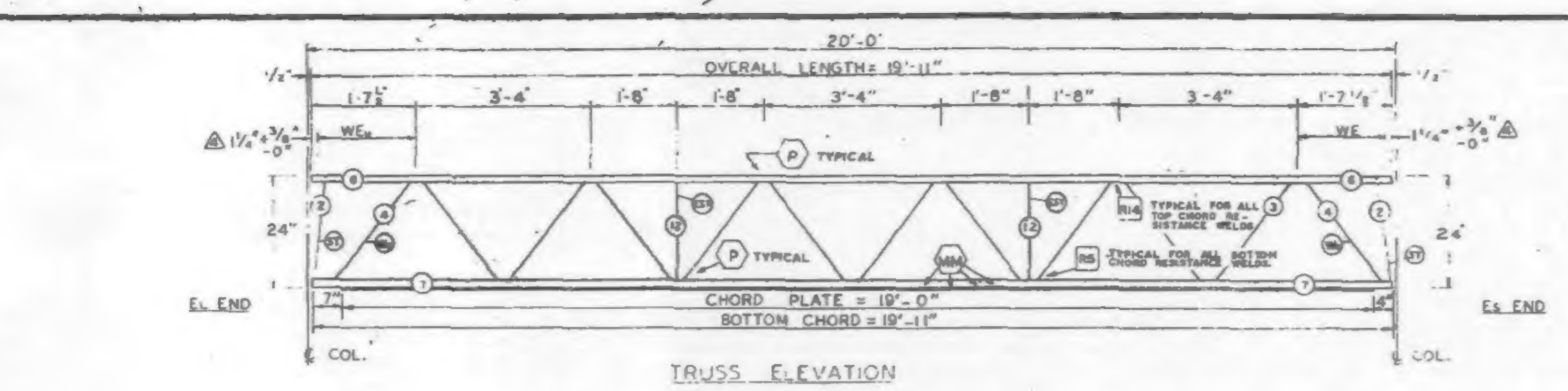
REF. DRWGS.

7-A82-18	10-4-68
7-A83-30	10-4-68
7-A83-31	10-4-68
7-A85-34	8-15-68
7-A84-17.2	10-4-68
7-A84-17.1	10-4-68
88-124	1-6-69
7-A82-1	1-6-69

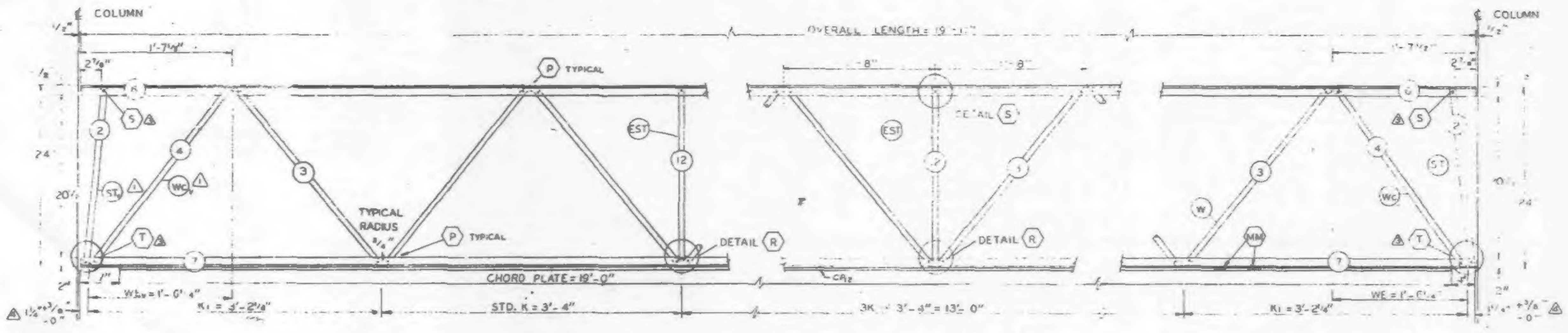
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10H 19'-11" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A82-18
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
DRAWN BY: [illegible] DATE APRIL 14, 1968
APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR DATE
CHECKED BY: T.M.CHURG DATE APRIL 14, 1968
IN CHARGE [illegible]
FABRICATION CONT. NO. W.T.C. 221
DET. [illegible]
SHEET [illegible]



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	±⅛"
DESIGN DEPTH	24"	±¼"
PANEL "K"	3'-4	±⅛"
PANEL "K1"	3'-2¼"	±⅛"
WEB DEPTH	23⅞"	±¼
OVERALL LENGTH	19'-11"	±⅛"

ALL PANEL POINTS RESISTANCE WELDED (A) ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (MM)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠1 AND ST291
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [RS].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

REF. DWG. 7-AB2-1 4-1-68
7-AB2-5 4-15-68
7-AB4-15.1 1-3-68
7-AB4-16,20 & 41 1-3-68
7-AB4-38 4-1-68
7-AB4-16 & 19 5-6-68 ⚠1

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK	TYPE STEEL	SIZE	LENGTH
24T10 -1911	6	A242	2"x1½"x.31"	19'-11"	7	A36	3"x2"x.33"	19'-11"	3	A242	1.14	25.7½" ⚠3	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP2	A36	6½"x½"	19'-0"

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10 -1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

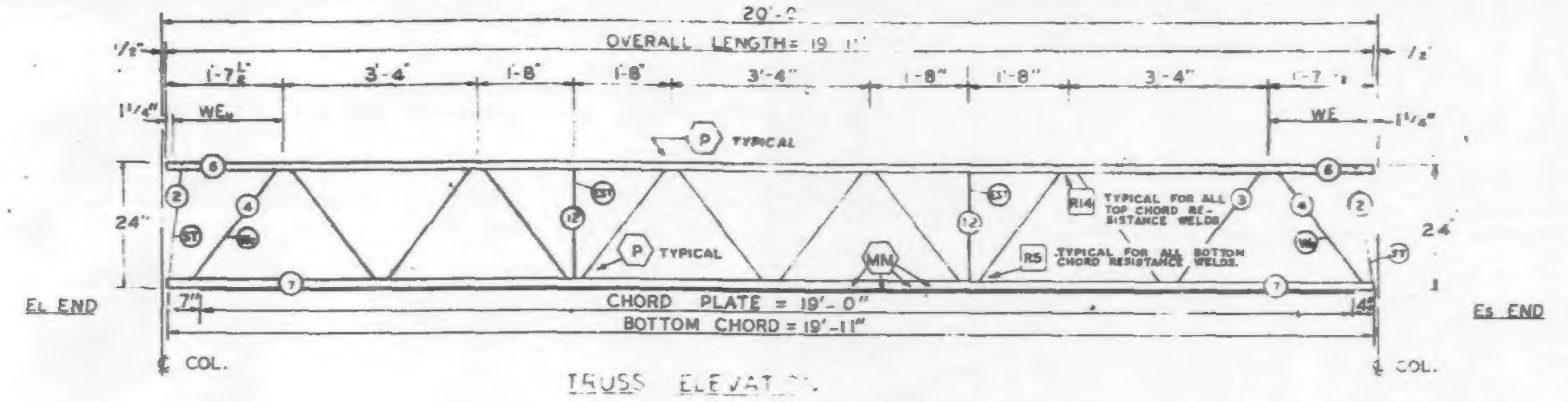
EL END TRUSS DESIGNATION	BEARING ANGLES				WE1	DIAGONAL "T" STRUT				⚠1 INCLINED "ST1" STRUT				END STIFFENER MK VS			MK V6			WEB "Wc1" ⚠1				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10 -1911	—	—	—	—	1'-6¾"	—	—	—	—	2	A242	1.14	1'-11⅞"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

NO.	DATE	REVISION	BY
⚠4	8-5-68	END DIST. ②	T.M.C.
⚠3	7-8-68	AS NOTED	T.M.C.
⚠2	7-3-68	MAIN WEB	T.M.C.
⚠1	5-28-68	AS NOTED	T.M.C.

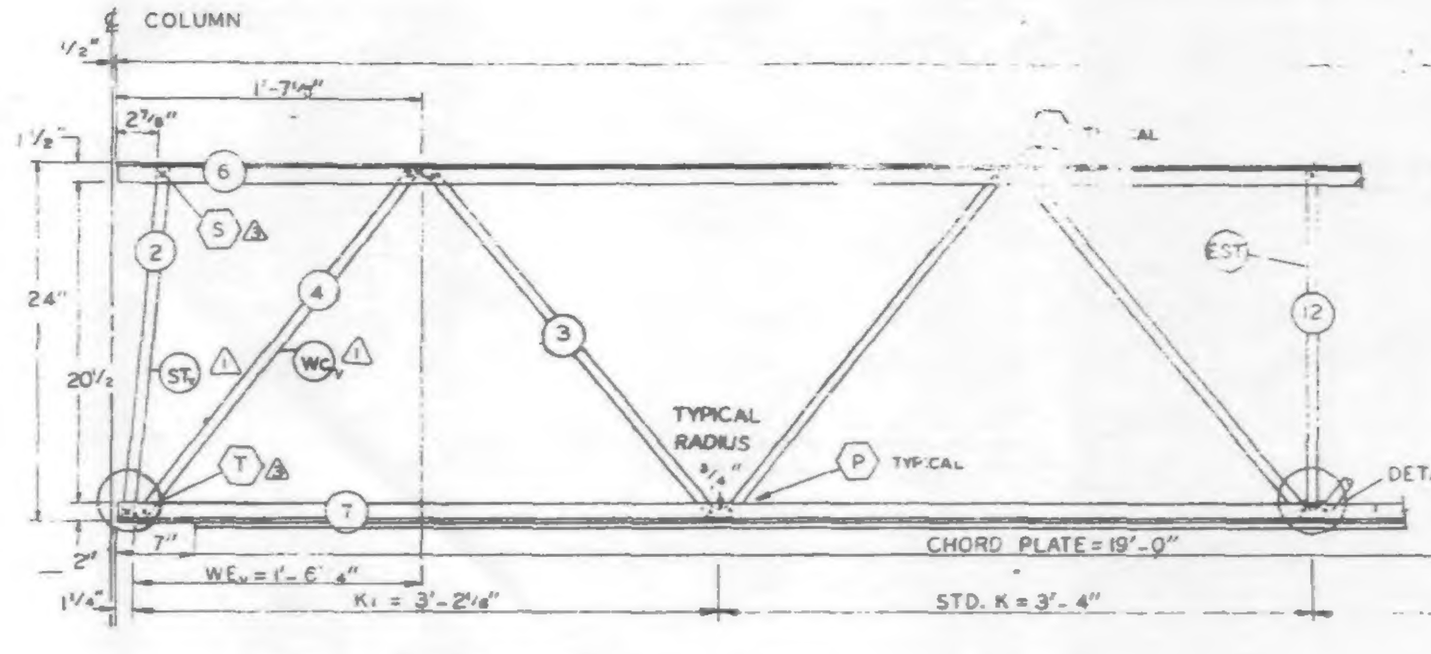
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10 x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

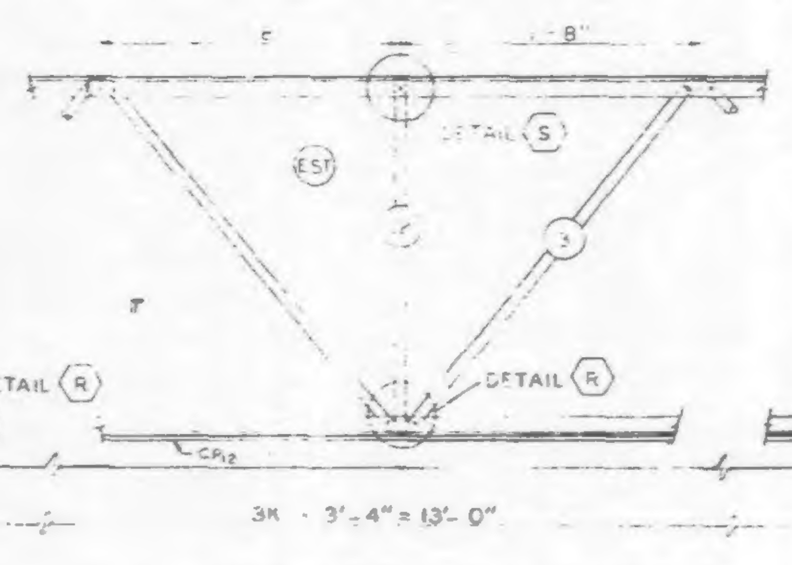
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-6 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE 9/10/68
DRAWN BY DATE MAY 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY
FABRICATION CONT. NO W.T.C. 221
SHEET NO ST210



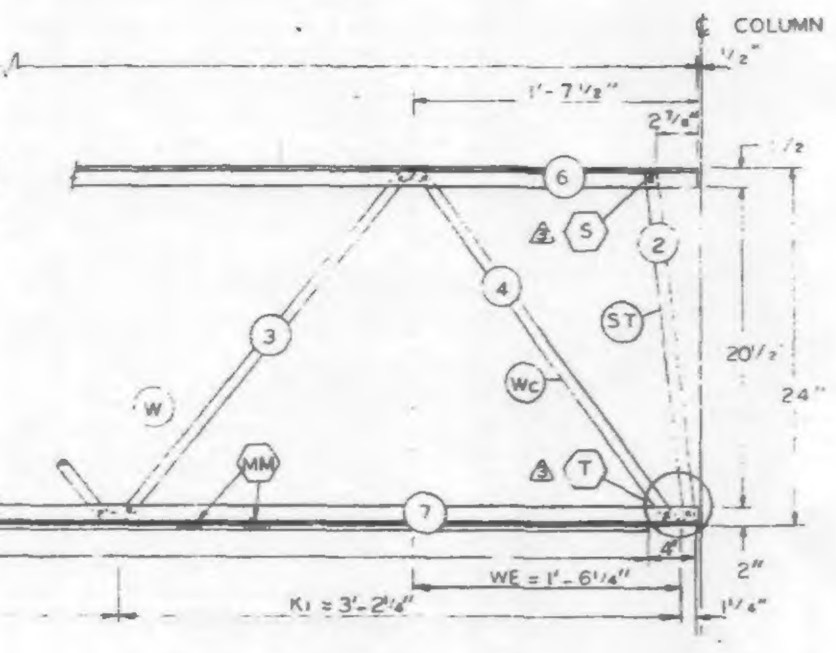
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 1/8"
DESIGN DEPTH,	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/4"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"

ALL PANEL POINTS RESISTANCE WELDED (×)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 (1) AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 (1)

REF DWG.
7-AB2-1 — 4-1-68
7-AB2-5 — 4-12-68
7-AB4-15.1 — 1-3-68
7-AB4-15,28 & 41 — 1-3-68
7-AB4-38 — 4-1-68
7-AB4-18 & 19 — 5-6-68 (1)

PAINT
LACLEDE ELECTROCOAT
RED NO. 200

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
–	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10 -1911	6	A242	2"x 1 1/2"x .31"	19'-11"	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	25'-7 1/8"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10"	2			—	—	CP2	A36	6 1/2"x 1/2"	19'-0"

(3)

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10 -1911	1'-6 1/4"	2	A242	1.14	1'-11 3/4"	4	A242	1	1.14	2'-5 1/2"

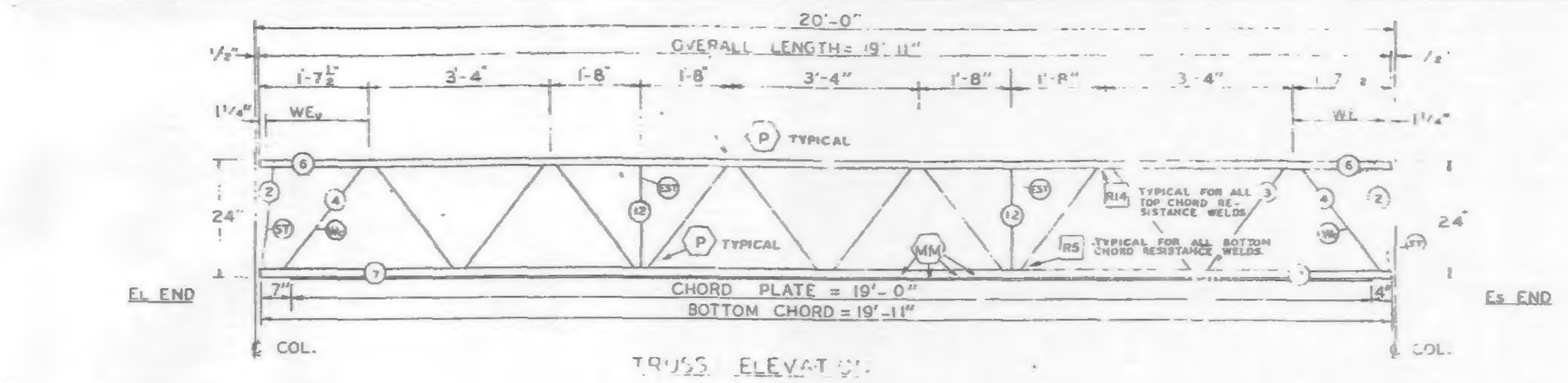
EL END	TRUSS DESIGNATION	BEARING ANGLES				WE1	DIAGONAL "T" STRUT				(1) INCLINED "ST" STRUT				END STIFFENER MK VS			END STIFFENER MK V6			WEB "Wc" (1)				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10 -1911	–	—	—	—	1'-6 1/4"	–	—	—	—	2	A242	1.14	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	1.14	2'-5 1/2"

NO.	DATE	REVISION	BY
3	7-8-68	AS NOTED	T.M.C.
2	7-3-68	MAIN WEB	T.M.C.
1	6-26-68	AS NOTED	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

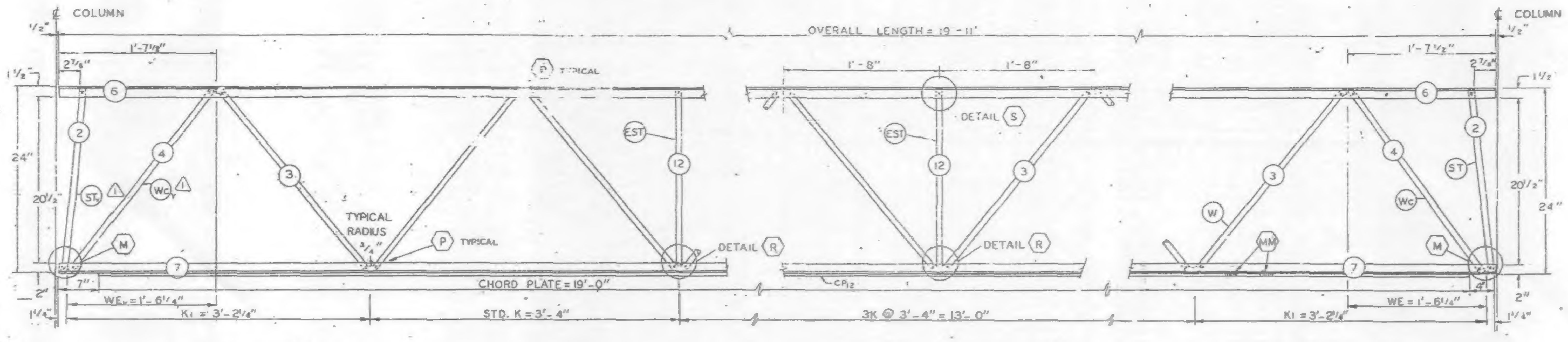
BRIDGING TRUSS 24T10 x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-5 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 7/9/68
DRAWN BY [illegible] DATE MAY 24, 1968
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR DATE ___
CHECKED BY T.M. CHURA DATE MAY 24, 1968
IN CHARGE PROD. [illegible]
DETAILED BY [illegible]
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT210



TRUSS ELEVATION

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	± 1/4
PANEL "K"	3'-4"	± 1/4
PANEL "K1"	3'-2 1/4"	[illegible]
WEB DEPTH	23 7/8"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (MM)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠1 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [RS].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

REF DWG.
- 7-AB2-1 — 4-1-68
- 7-AB2-5 — 4-15-68
- 7-AB4-15.1 — 1-3-68
- 7-AB4-19, 28 & 41 — 1-3-68
- 7-AB4-38 — 4-1-68
- 7-AB4-16 & 18 — 5-6-68 ⚠1

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10 -1911	6	A242	2" x 1 1/2" x .31"	19'-11"	7	A36	3" x 2" x .33"	19'-11"	3	A242	1.14	30'-6 1/2"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10 7/8"	2			—	—	CP12	A36	6 1/2" x 1/2"	19'-0"

ES END: TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10 -1911	1'-6 1/4"	2	A242	1.14	1'-11 3/4"	4	A242	1	1.14	2'-5 1/2"

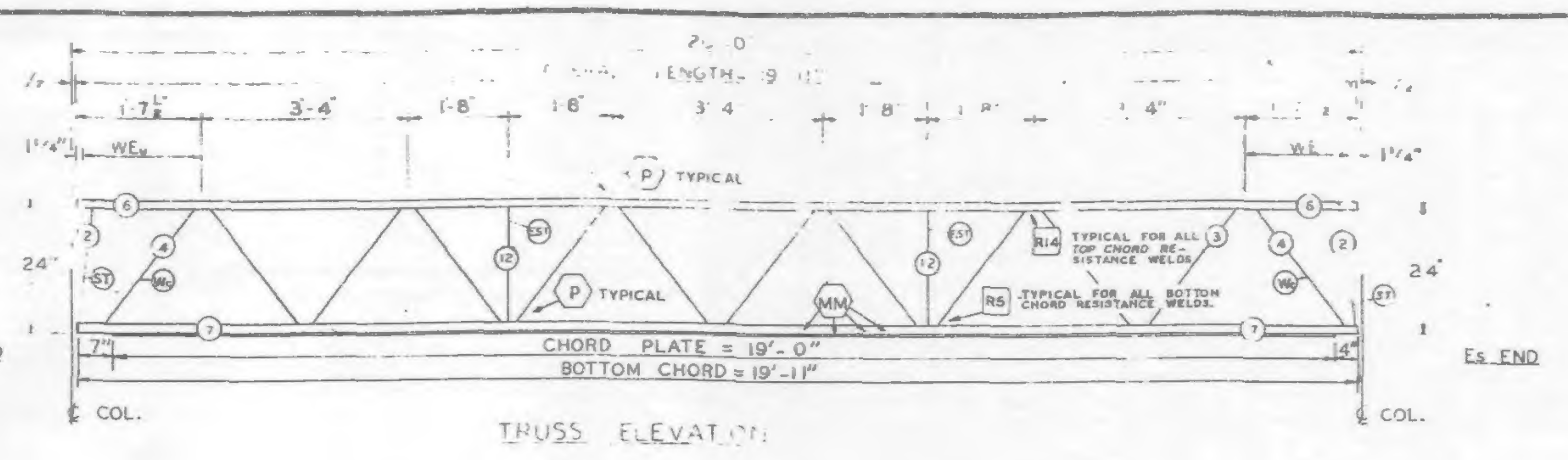
EL END: TRUSS DESIGNATION	BEARING ANGLES				WEE	DIAGONAL "T" STRUT				⚠1 INCLINED "ST1" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WC1" ⚠1				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10 -1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	1.14	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	1.14	2'-5 1/2"

NO.	DATE	REVISION	BY
⚠1	6-26-68	AS NOTED	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

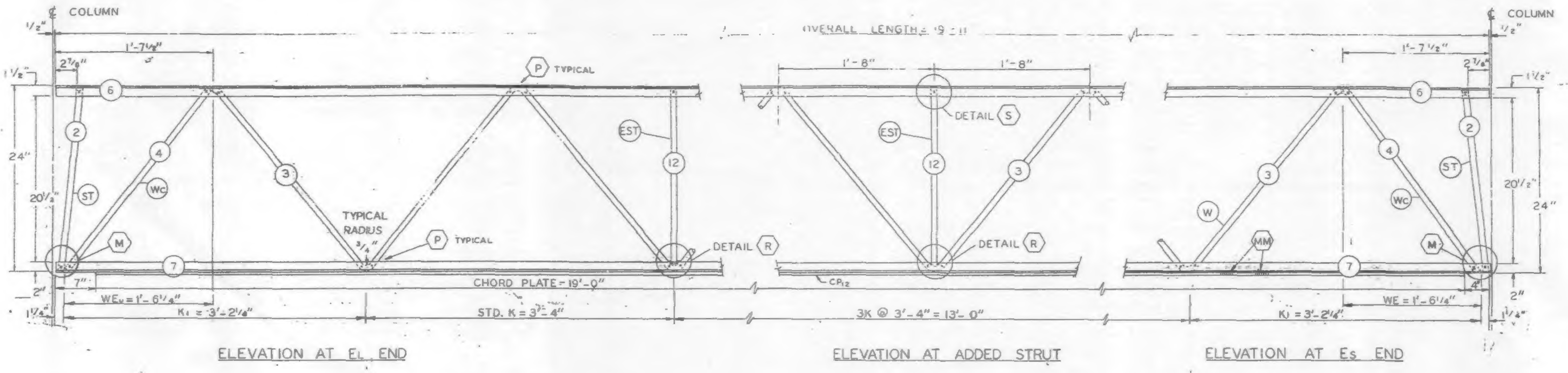
BRIDGING TRUSS 24T10 x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-5 PLATE ____
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 7/5/68
DRAWN BY [illegible] DATE MAY 24, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE ____
CHECKED BY T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD DEV
DETAILED BY A C WEBER
FABRICATION CONT. NO W T C 221
SHEET NO BT210



TRUSS ELEVATION

CAMBER AT MIDSPAN		
DESIGN DEPTH	24"	
PANEL "K"	3'-4"	
PANEL "K1"	3'-2 1/4"	
WEB DEPTH		
OVERALL LENGTH	19'-11"	



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (HHH)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST281, AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST281.

REF. DWG.
7-AB2-1 4-1-68
7-AB2-5 4-15-68
7-AB4-15.1 1-3-68
7-AB4-19,28 & 41 1-3-68
7-AB4-38 4-1-68
7-AB4-18 & 18 5-17-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF x	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10 -1911	6	A242	2"x 1 1/2"x .31"	19'-11"	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	30'-6 1/2"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10 7/8"	2			—	—	CP12	A36	6 1/2"x 1/2"	19'-0"

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10 -1911	1'-6 1/4"	2	A242	1.14	1'-11 3/4"	4	A242	1	1.14	2'-5 1/2"

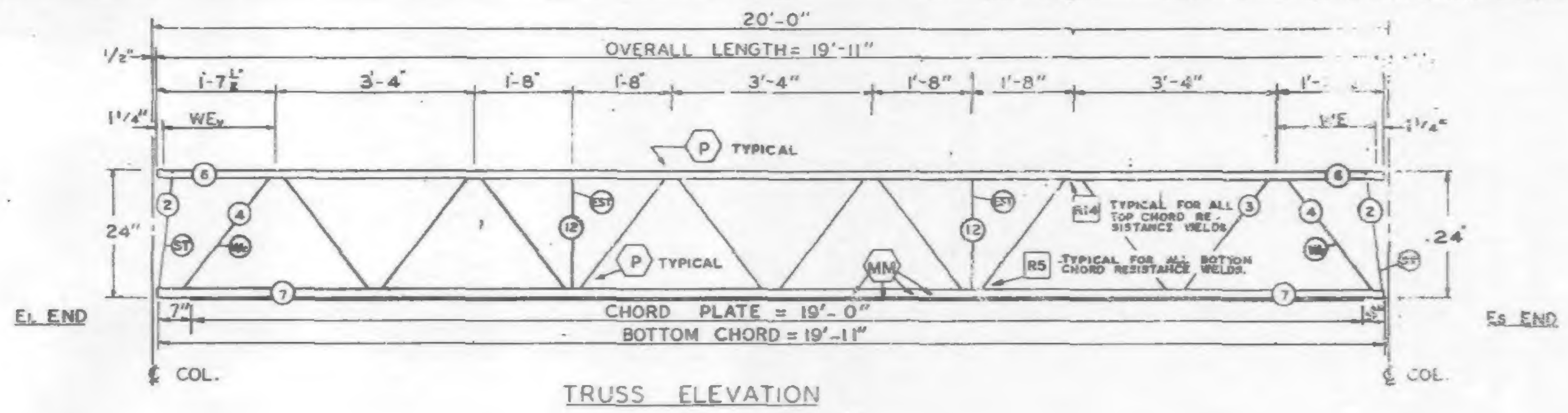
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10 -1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	1.14	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	1.14	2'-5 1/2"

NO.	DATE	REVISION	BY

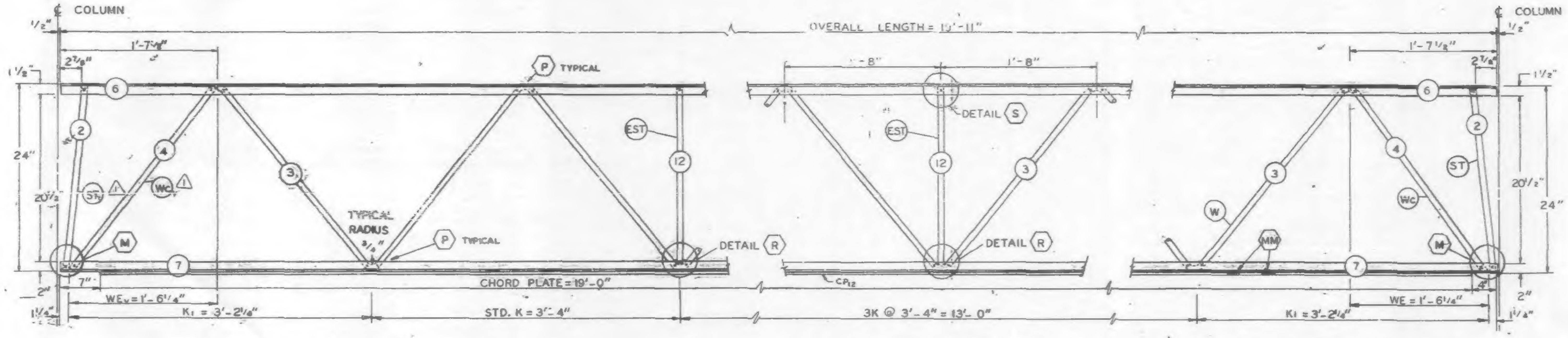
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10 x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-5 PLATE
APPROVED FOR FABRICATION BY W.T.C. FOR P.O.N.Y.A. DATE 6/6/68
DRAWN BY: DATE MAY 24, 1968
APPROVED FOR FABRICATION BY LACLEDE STEEL CO. DATE
CHECKED BY T.M. CHURA DATE MAY 24, 1968
IN CHARGE PROD. DEPT.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET BT210



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2¼"	± 1/4"
WEB DEPTH	23½"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠1
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM; ie., [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

REF. DWG.

7-AB2-1	4-1-68
7-AB2-5	4-15-68
7-AB4-15.1	1-3-68
7-AB4-19, 28 & 41	1-3-68
7-AB4-38	4-1-68
7-AB4-16 & 18	5-6-68 ⚠1

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K.	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10 -1911	6	A242	2"x 1½"x .31"	19'-11"	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	25'-7½"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP2	A36	6½"x ½"	19'-0"

⚠2

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS	DIA	LENGTH
24T10 -1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5⅛"

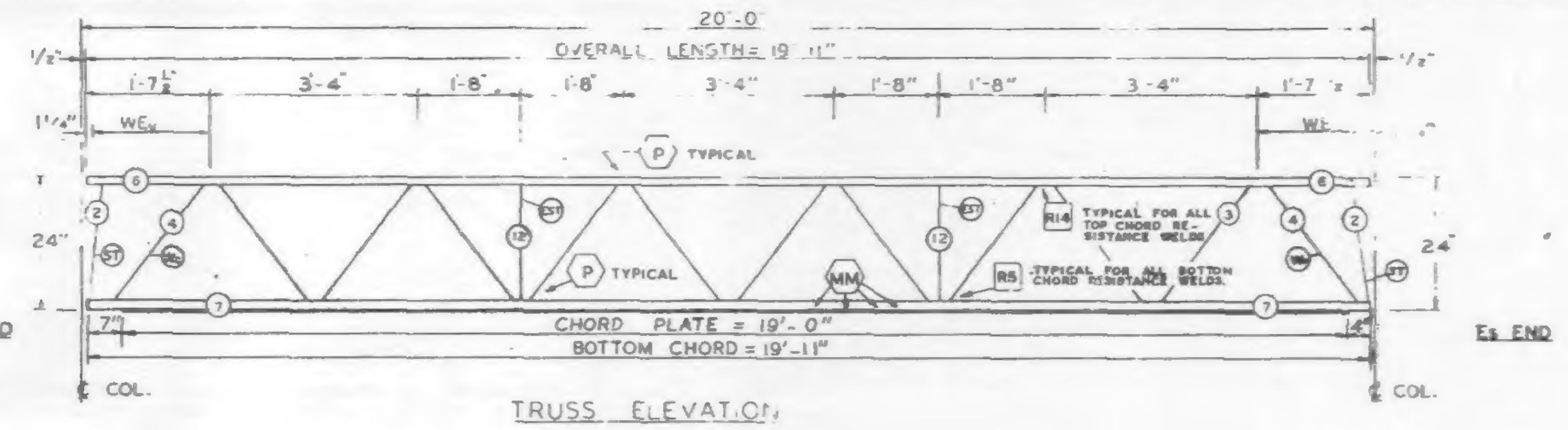
EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				⚠1 INCLINED "STv" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wcv" ⚠1				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10 -1911	—	—	—	—	1'-6¾"	—	—	—	—	2	A242	1.14	1'-11½"	—	—	—	—	—	—	4	A242	1	1.14	2'-5⅛"

NO.	DATE	REVISION	BY
⚠2	7-3-68	MAIN WEB	T.M.C.
⚠1	6-26-68	AS NOTED	T.M.C.

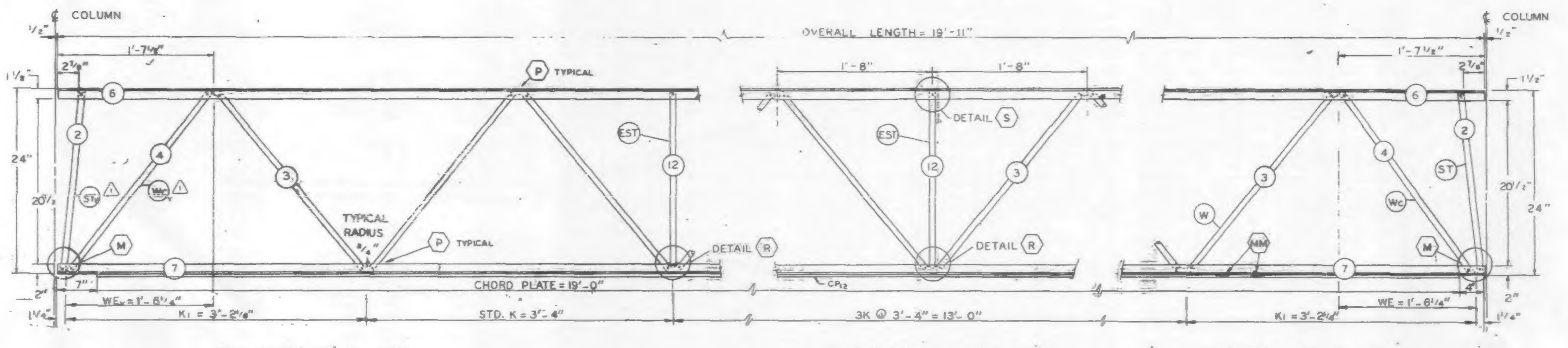
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10 x 19'-11" LONG
WORLD TRADE CENTER TOWERS · A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-5
PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A DATE
DRAWN BY: ____ DATE MAY 24, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO BT210



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 1/4"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/4"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/4"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (MM)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 AND ST291. ⚠1
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

REF DWG.

7-AB2-1	4-1-68
7-AB2-5	4-15-68
7-AB4-15.1	1-3-68
7-AB4-19,28 & 41	1-3-68
7-AB4-38	4-1-68
7-AB4-18 & 18	5-6-68 ⚠1

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T108-1911	6	A242	2" x 1 1/2" x .31"	19'-11"	7	A36	3" x 2" x .33"	19'-11"	3	A242	1.14	25'-7 1/2" ⚠2	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10 7/8"	2			—	—	CP2	A36	6 1/2" x 1/2"	19'-0"

Es END	TRUSS DESIGNATION	WE	INCLINED 'ST' STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T108-1911	1'-6 1/4"	2	A242	1.14	1'-11 3/4"	4	A242	1	1.14	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "STv" STRUT ⚠1				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc" ⚠1				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T108-1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	1.14	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	1.14	2'-5 1/2"

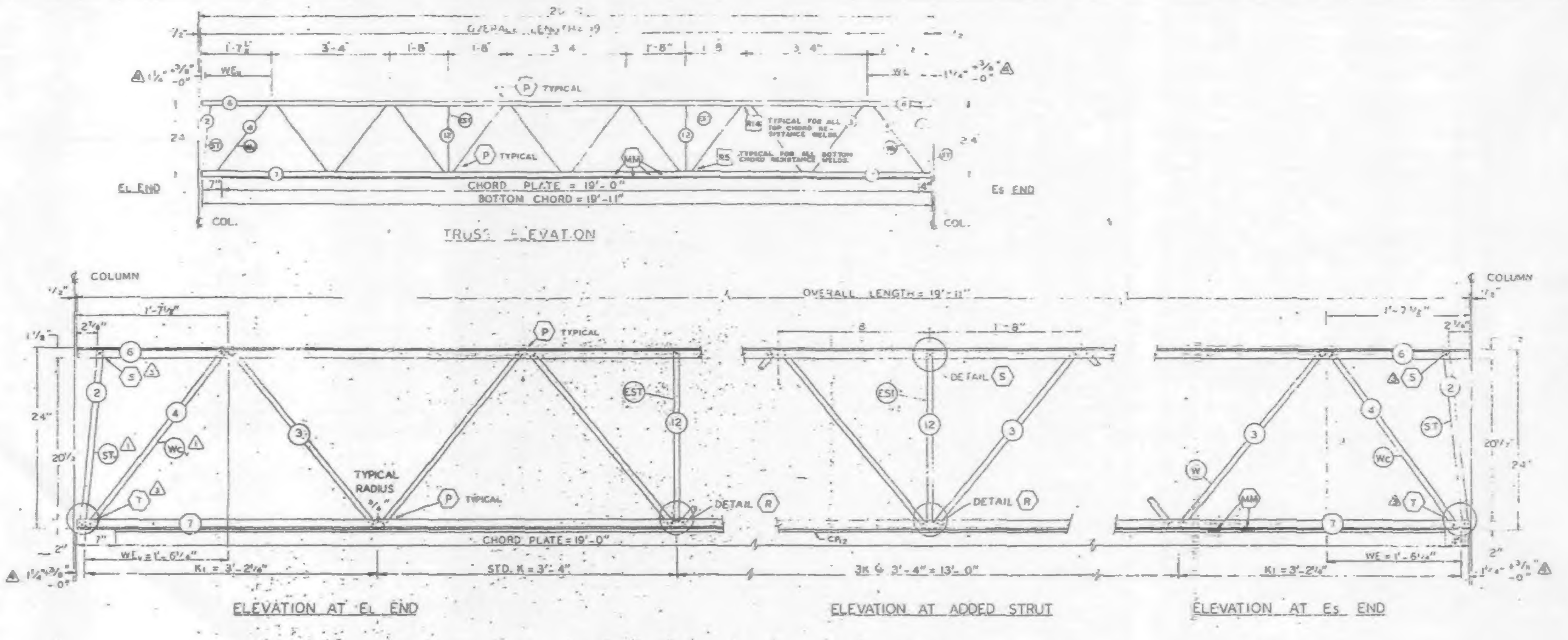
NO.	DATE	REVISION	BY
⚠2	7-3-68	MAIN WEB	T.M.C.
⚠1	6-26-68	AS NOTED	T.M.C.

VOID

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T108 x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-5 PLATE 1
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A DATE ____
DRAWN BY ______ DATE MAY 24, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE ____
CHECKED BY T.M.CHURA DATE MAY 24, 1968
IN CHARGE PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO BT2108



ALL PANEL POINTS RESISTANCE WELDED [illegible]
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES [illegible]
ALL WELD DETAILS SHOWN ON SHEETS ST29C, ST282 AND ST291. △
LETTERS IN HEXAGON INDICATE WELD DETAIL [illegible]
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [RS].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 △1

REF DWG. 7-AB2-1 ... 4-1-68
7-AB2-5 ... [illegible]
7-AB4-15.1 ... [illegible]
7-AB4-19,20,& 41 ... [illegible]
7-AB4-38 ... [illegible]
7-AB4-18 & 18 ... 5-6-68 △1

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK	TYPE STEEL	SIZE	LENGTH
24T10A-1911	6	A242	2"x1½"x.31"	19'-11"	7	A36	3"x2"x.33"	19'-11"	3	A242	1.14	25'-7½" △	SK @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP	A36	6½"x¼"	19'-0"

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	1'-6¼"	2	A242	1.14	1'-11⅜"	4	A242	1	1.14	2'-5½"

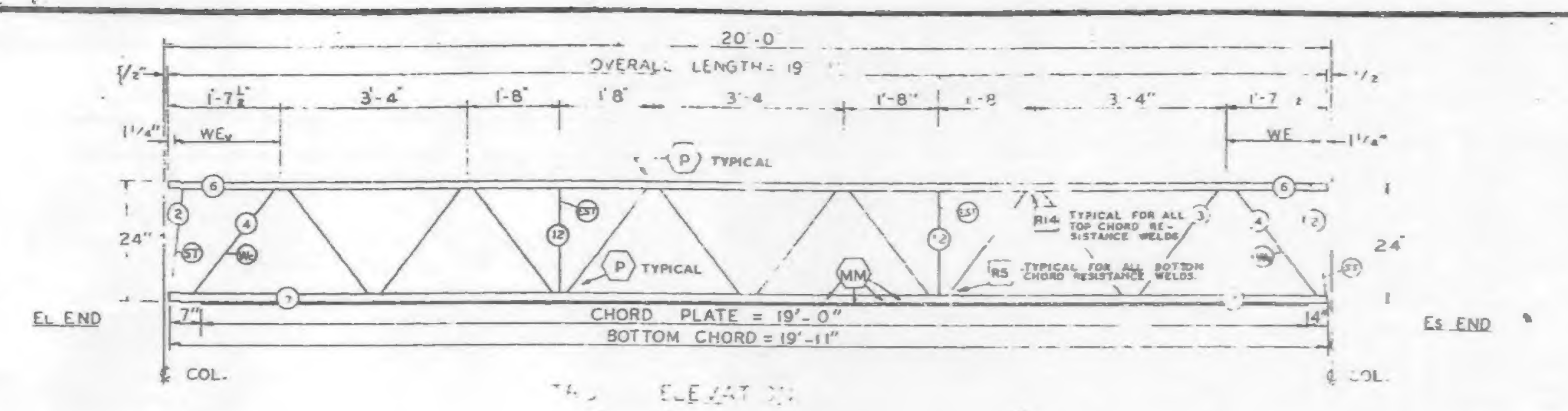
EL END	TRUSS DESIGNATION	BEARING ANGLES				WE	DIAGONAL "T" STRUT				INCLINED "ST" STRUT △1				END STIFFENER MK VS			END STIFFENER MK VS			WEB "WC" △1				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	—	—	—	—	1'-6¾"	—	—	—	—	2	A242	1.14	1'-11⅜"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

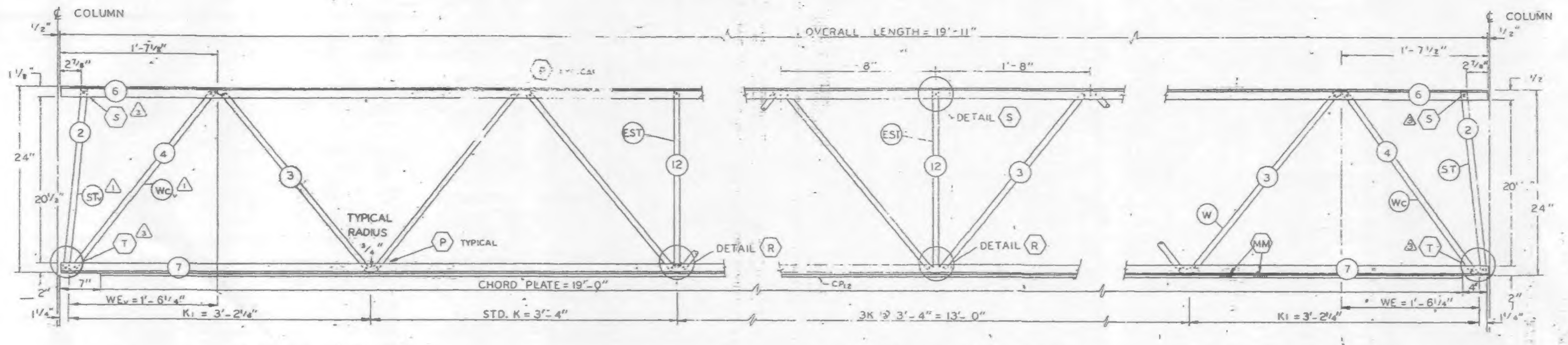
NO.	DATE	REVISION	BY
△4	9-5-68	END DIST (2)	T.M.C.
△3	7-8-68	AS NOTED	T.M.C.
△2	7-3-68	MAIN WEB	T.M.C.
△1	6-26-68	AS NOTED	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATED BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-5
DATE 9/10/68
DRAWN BY [illegible] DATE MAY 24 1968
CHECKED BY T.M.CHUMA DATE MAY 24, 1968
221
BT210A





ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K1"	3'-2¼"	[illegible]
WEB DEPTH	23[illegible]	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 AND ST291. (1)
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST.282 (1)

REF. DWG.

7-AB2-1	4-1-68
7-AB2-5	4-15-68
7-AB4-15.1	1-3-68
7-AB4-19, 20 & 41	1-3-68
7-AB4-38	4-1-68
7-AB4-16 & 18	5-6-68 (1)

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
2[illegible]-1911	6	A242	2" x 1½" x .31"	19'-11"	7	A36	3" x 2" x .33"	19'-11"	3	A242	1.14	25'-7½" (2)	5K ± 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CR2	A36	6½" x ½"	19'-0"

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10A-1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

EL END TRUSS DESIGNATION	BEARING ANGLES				WEL	DIAGONAL "T" STRUT				INCLINED "STL" STRUT (1)				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WcL" (1)				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10A-1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	1.14	1'-11½"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

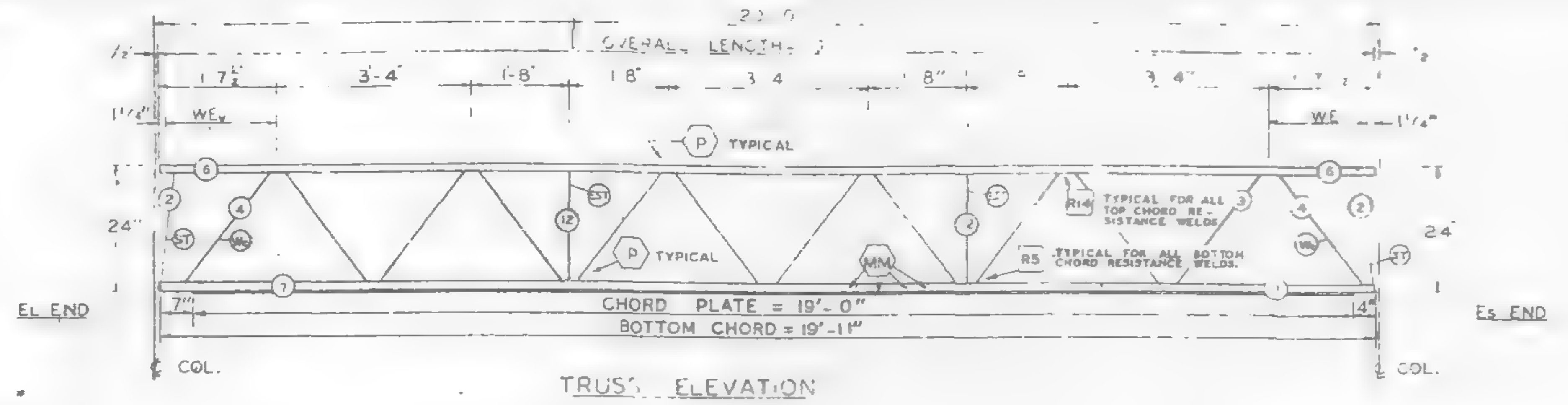
NO.	DATE	REVISION	BY
(3)	7-8-68	AS NOTED	T.M.C.
(2)	7-3-68	MAIN WEB	T.M.C.
(1)	6-26-68	AS NOTED	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

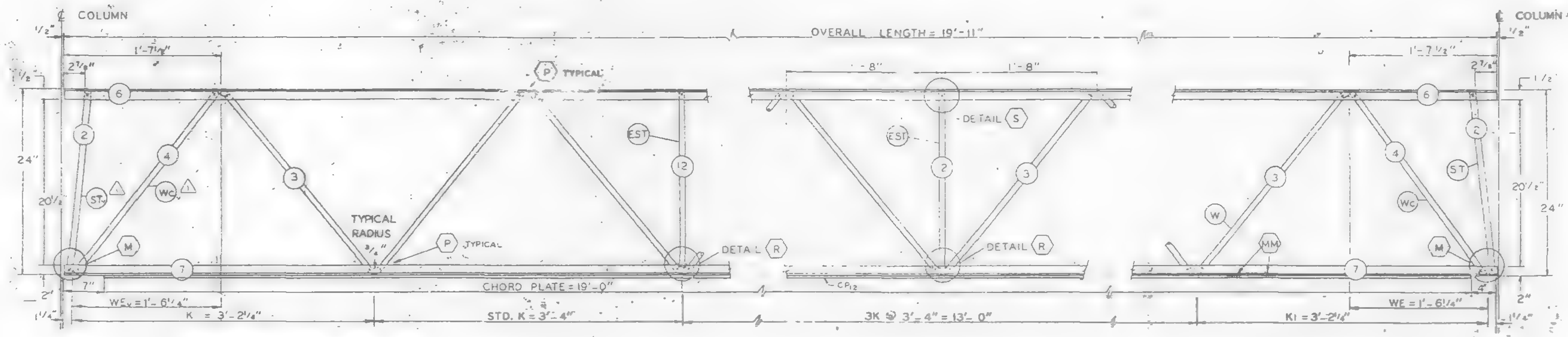
BRIDGING TRUSS 24T10A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-5	PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A.	DATE 7/9/68	DRAWN BY [illegible] DATE MAY 24, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE MAY 24, 1968	IN CHARGE PROD.
DETAILED BY [illegible] WEBER		FABRICATION CONT. NO. WTC 221	SHEET BT210A



TRUSS ELEVATION



ELEVATION AT EL END ELEVATION AT ADDED STRUT ELEVATION AT ES END

FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2¼"	± 1/4"
WEB DEPTH	23⅞"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (MM)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 (1) AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 (1)

REF DWG.	
7-AB2-1	4-1-68
7-AB2-5	4-15-68
7-AB4-15.1	1-3-68
7-AB4-19, 28 & 41	1-3-68
7-AB4-38	4-1-68
7-AB4-16 & 18	5-6-68 (1)

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10A-1911	6	A242	2"x 1½"x .31"	19'-11"	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	30'-6⅞"	5K @ 3'-4" = 6'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP2	A36	6½"x ½"	19'-0"

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

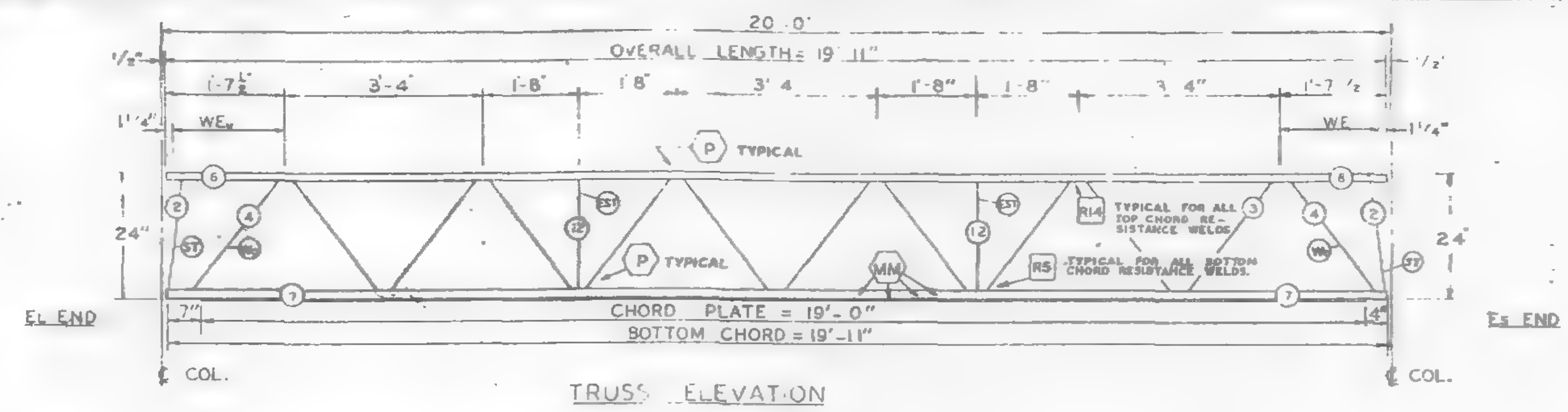
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST1" STRUT (1)				END STIFFENER MK VS			END STIFFENER MK V6			WEB "WC1" (1)				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	—	—	—	—	1'-8¼"	—	—	—	—	2	A242	1.14	1'-11½"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

NO.	DATE	REVISION	BY
(1)	6-26-68	AS NOTED	T.M.C.

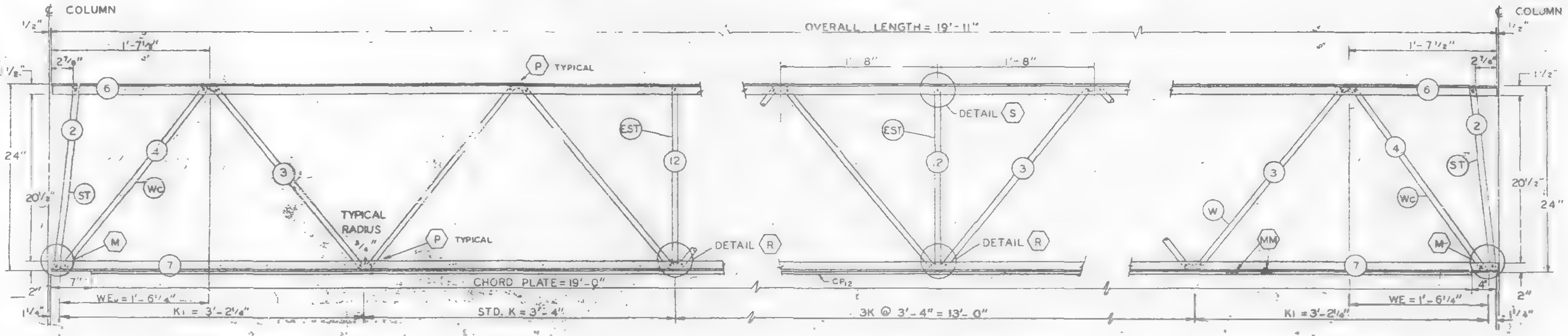
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10A x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-5 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 7/5/68
DRAWN BY [illegible] DATE MAY 24 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE MAY 24 1968
IN CHARGE PROD
DETAILED BY A C WEBER
FABRICATION CONT NO. WT 221
SHEET BT210A



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/8"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST281, AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST281.

REF. DWG.

7-AB2-1	4-1-68
7-AB2-5	4-5-68
7-AB4-13.1	1-3-68
7-AB4-19, 28 & 41	1-3-68
7-AB4-38	4-1-68
7-AB4-16 & 18	5-17-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10A-1911	6	A242	2"x 1 1/2"x .31"	19'-[illegible]	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	30'-6"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10 7/8"	2			—	—	CP12	A36	6 1/2"x 1/4"	19'-0"

ES	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK.	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	1'-6 1/4"	2	A242	1.14	1'-11 3/4"	4	A242	1	1.14	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEL	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	1.14	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	1.14	2'-5 1/2"

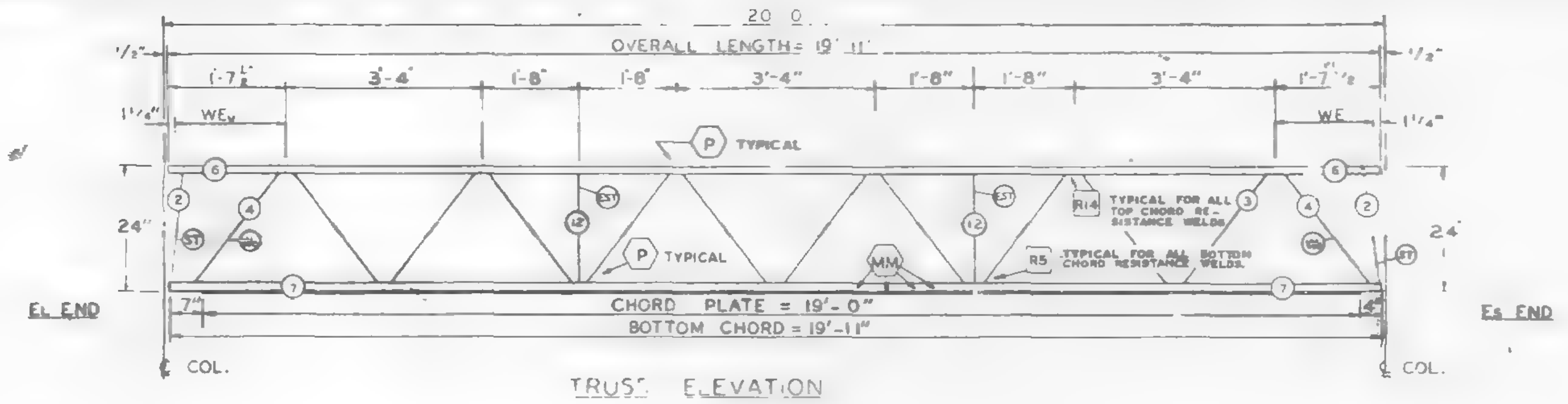
NO.	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

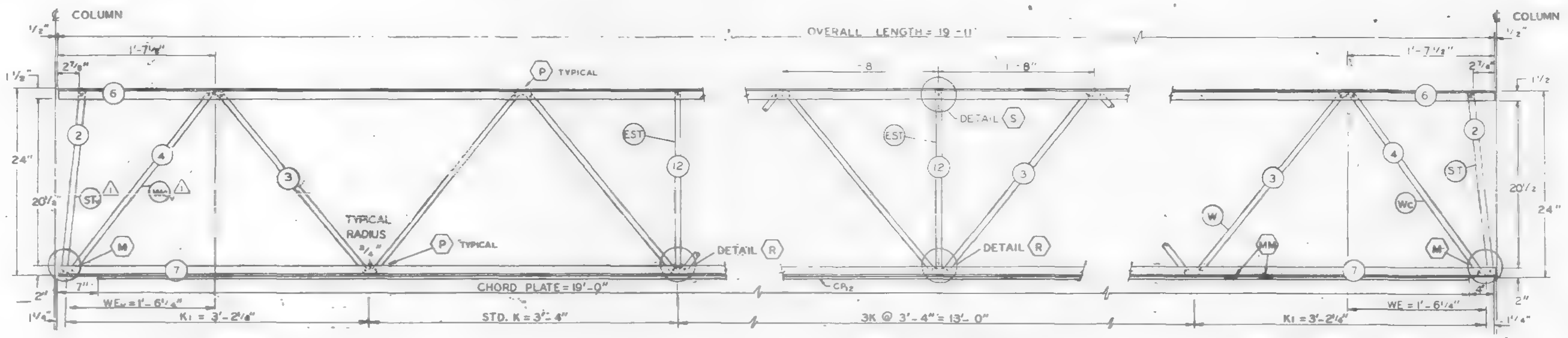
BRIDGING TRUSS 24T10A x 19'-11" LONG
WORLD TRADE CENTER TOWERS · A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO. 7-AB2-5 | PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A. DATE 6/6/68
DRAWN BY [illegible] DATE MAY 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE MAY 24, 1968
IN CHARGE PROD.
DETAILED BY A C WEBER
FABRICATION CONT NO W.T. 221
SHEET BT210A



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/4"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	+ 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ( )
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠1
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

REF. DWG.

7-AB2-1	4-1-68
7-AB2-5	4-15-68
7-AB4-15 1	-3-68
7-AB4-19, 20 & 41	1 3 68
7-AB4-30	4-1-68
7-AB4-18 & 10	5-6-68 ⚠1

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK	TYPE STEEL	SIZE	LENGTH
24T10A-1911	6	A242	2" x 1 1/2" x .31"	19'-11"	7	A36	3" x 2" x .33"	19'-11"	3	A242	1.14	25'-7 1/2" ⚠2	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10 7/8"	2			—	—	CP1	A36	6 1/2" x 1/2"	19'-0"

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	1'-6 1/4"	2	A242	1.14	1'-11 3/4"	4	A242	1	1.14	2'-5 1/8"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST1" STRUT ⚠1				END STIFFENER MK VS			END STIFFENER MK V6			WEB "Wc1" ⚠1				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10A-1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	1.14	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	1.14	2'-5 1/8"

NO.	DATE	REVISION	BY
⚠2	7-3-68	MAIN WEB	T.M.C.
⚠1	6-26-68	AS NOTED	T.M.C.

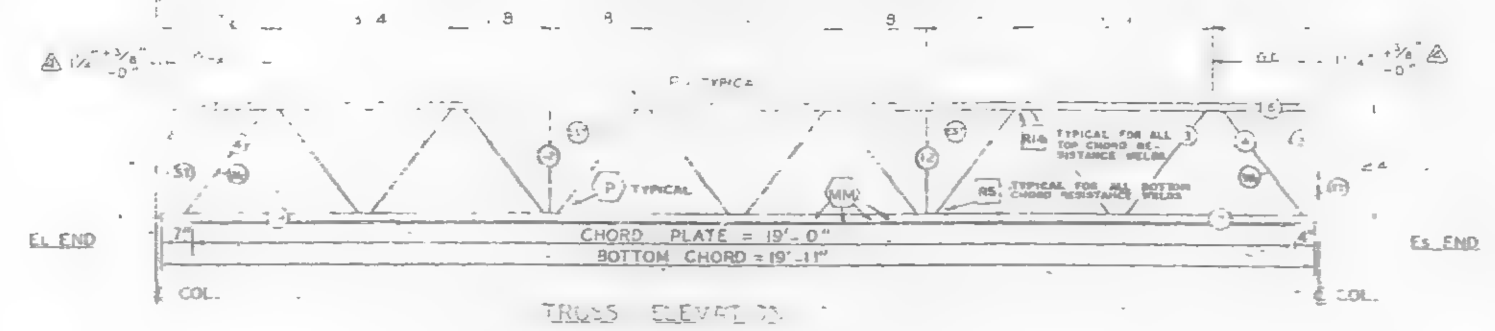
VOID

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

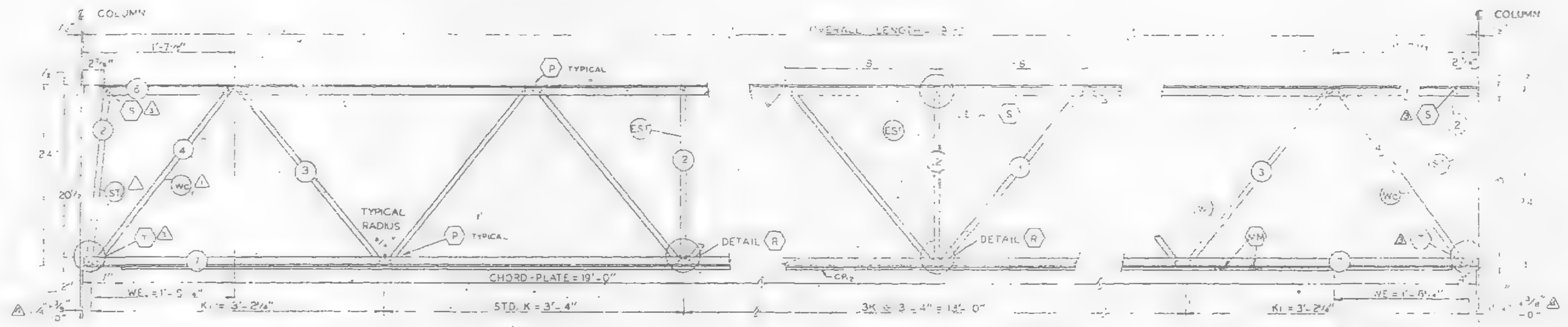
BRIDGING TRUSS 24T10A x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-5	PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A	DATE	DRAWN BY: ______ DATE MAY 24 1968	
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE MAY 24 1968	IN CHARGE PROD. OF
DETAILED BY A C WEBER		FABRICATION CONT NO WTC 221	SHEET BT210A



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

PANEL POINTS RESISTANCE WELDED ... AS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ... WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠ AND ST29[illegible]

LETTERS IN HEXAGON INDICATE WELD DETAIL. LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [RS].

CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠

REF. DWG. 7-AB6-1 ... 7-AB2-3 ... 7-AB4-12 ... 7-AB4-15,28 & 41 ... 7-AB4-36 ... 7-AB4-15 & 18 ... 5-6-68 ⚠

PAINT
LACLEDE ELECTROCOAT
RED NO. ...

TRUSS DESIGNATION	TOP CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	BOTTOM CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	MAIN WEB "WA" MK.	TYPE STEEL	⌀	LENGTH	NO. OF K	VERTICAL "EST" STRUT MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED	TRUSS DATA		FILLER NO.	DIA.	CHORD PLATE MK.	TYPE STEEL	SIZE	LENGTH
24T108-1911	6	A242	2" × 1½" × .34"	19'-11"	7	A36	3" × 2" × .33"	19'-11"	3	A242	1.14	25'-7½"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CR₂	A36	6½" × ⅞"	19' 0"

TRUSS DESIGNATION	WE	INCLINED "ST" STRUT MK.	TYPE STEEL	DIA.	LENGTH	WEB "WC" MK.	TYPE STEEL	PCS	DIA	LENGTH
24T[illegible]-1911	1'-8¾"	2	A242	1.14	1'-1½"	4	A242	1	1.14	2'-5½"

TRUSS DESIGNATION	BEARING ANGLES MK.	TYPE	SIZE	LENGTH	WE	DIAGONAL "T" STRUT MK.	TYPE STEEL	DIA	LENGTH	INCLINED "ST" STRUT ⚠ MK.	TYPE STEEL	DIA.	LENGTH	END STIFFENER MK. V5 TYPE STEEL	DIA	LENGTH	MK. V6 TYPE STEEL	DIA	LENGTH	WEB "WC" ⚠ MK.	TYPE STEEL	PCS	DIA	LENGTH
24T108-1911					1'-8¾"	—	—	—	—	2	A242	1.14	1'-1½"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

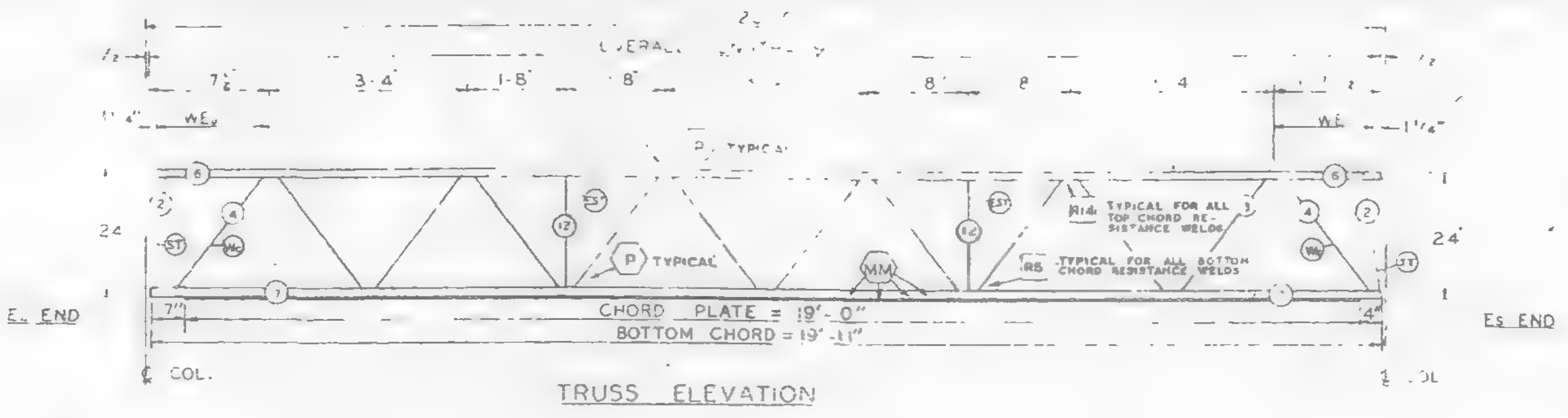
NO.	DATE	REVISION	BY
⚠	9-5-68	END DIST ②	T.M.C.
⚠	7-8-68	AS NOTED	T.M.C.
⚠	7-3-68	MAIN WEB	T.M.C.
⚠	6-26-68	AS NOTED	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

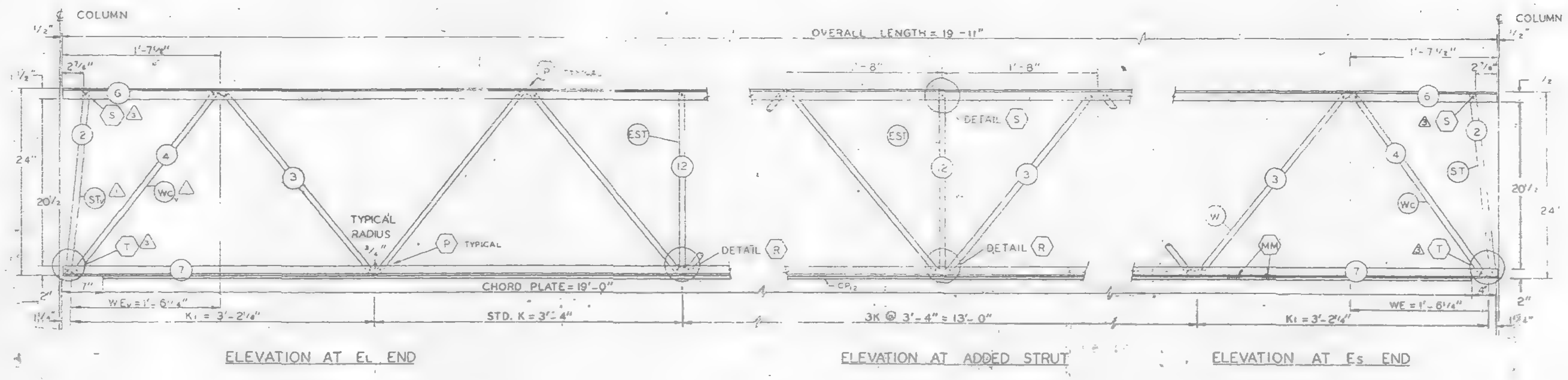
BRIDGING TRUSS 24T108 ... LONG
WORLD TRADE CENTER TOWERS A-B

LACLEDE STEEL COMPANY

AT MADISON NO. 5
DESIGN DRAWING NO. 7-AB2-5
DRAWN BY ... DATE MAY 24, 1968
APPROVED FOR FABRICATION ... DATE 9/10/68
CHECKED BY T.M.CHUBA DATE MAY 24, 1968
IN CHARGE ...
FABRICATION CONT. NO. 221
SHEET NO. BT2108



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠1
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., RS.
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

REF. DWG.

7-AB2-1	4-1-68
7-AB2-5	[illegible]
7-AB4-15.1	1-3-68
7-AB4-19, 28 & 41	[illegible]
7-AB4-38	4-1-68
7-AB4-16 & 18	5-6-68 ⚠1

PAINT
LACLEDE ELECTROCOAT
RED. NO. 1000R

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24 [illegible]	6	A242	2"x1½"x.31"	19'-11"	7	A36	3"x2"x.33"	19'-11"	3	A242	1.14	25'-7½" ⚠2	5K @ 3'-4" = 6'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP12	A36	6½"x½"	19'-0"

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10B-1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

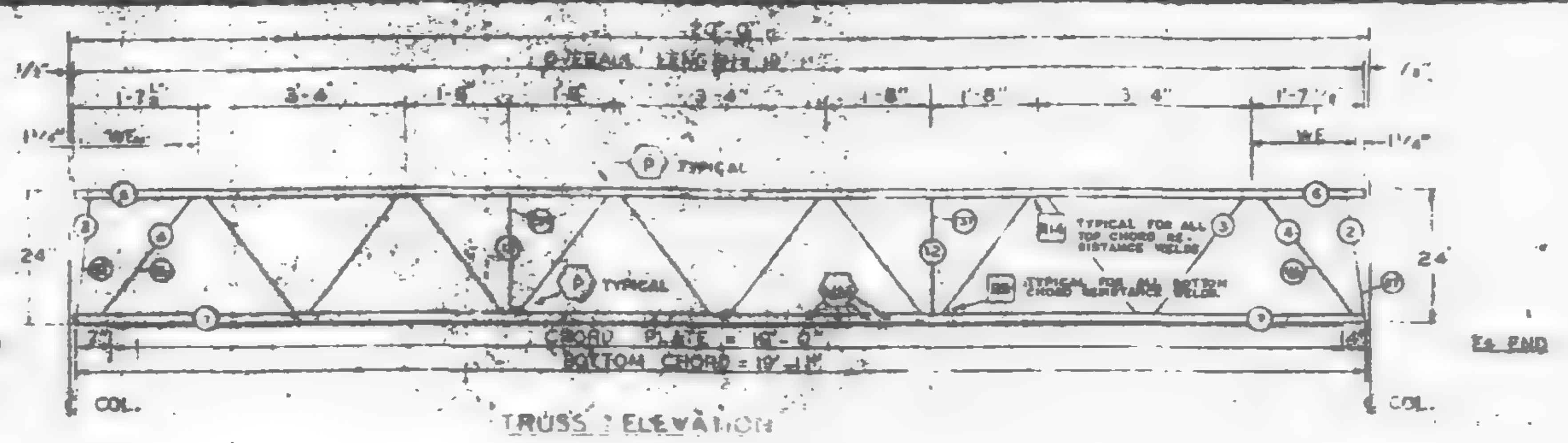
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "STv" STRUT ⚠1				END STIFFENER						WEB "WCv" ⚠1				
		MK	TYPE STEEL	SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK VS TYPE STEEL	DIA	LENGTH	MK VF	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10B-1911	—			—	6¼"	—	—	—	—	2	A242	1.14	[illegible]	—		—				4	A242	1	1.14	2'-5½"

NO.	DATE	REVISION	BY
⚠3	7-8-68	AS NOTED	T.M.C.
⚠2	7-3-68	MAIN WEB	T.M.C.
⚠1	6-26-68	AS NOTED	T.M.C.

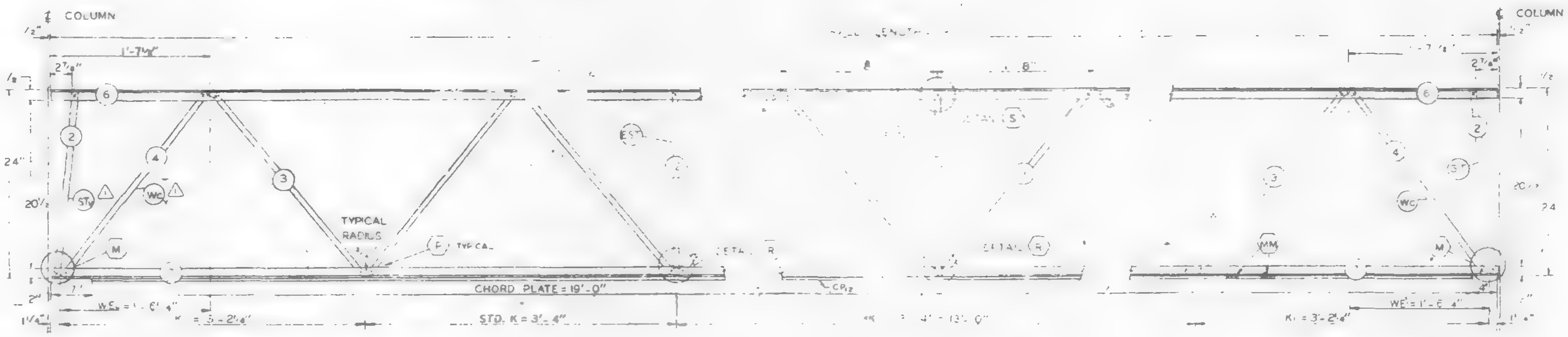
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10B x 19'-11" LONG
WORLD TRADE CENTER TOWERS A B

FABR. AT: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-5
APPROVED FOR FABRICATION BY JW FOR P.N.Y.A. DATE 7/9/68
DRAWN BY [illegible] DATE MAY 24 1968
APPROVED FOR FABRICATION FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE MAY 24 1968
DETAILED BY [illegible] WEBER
SHEET 22
ST210B



TRUSS ELEVATION



ELEVATION AT E1 END

ELEVATION AT ADDED STRUT

ELEVATION AT E2 END

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K1"	3'-2¼"	[illegible]
WEB DEPTH	23"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 ⚠1
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R5.
CHORD PLATE DETAILS SHOWN ON SHEET ST282 ⚠1

TRUSS DESIGNATION — BOTTOM CHORD — MAIN WEB — FILLER — CHORD PLATE

NEW YORK

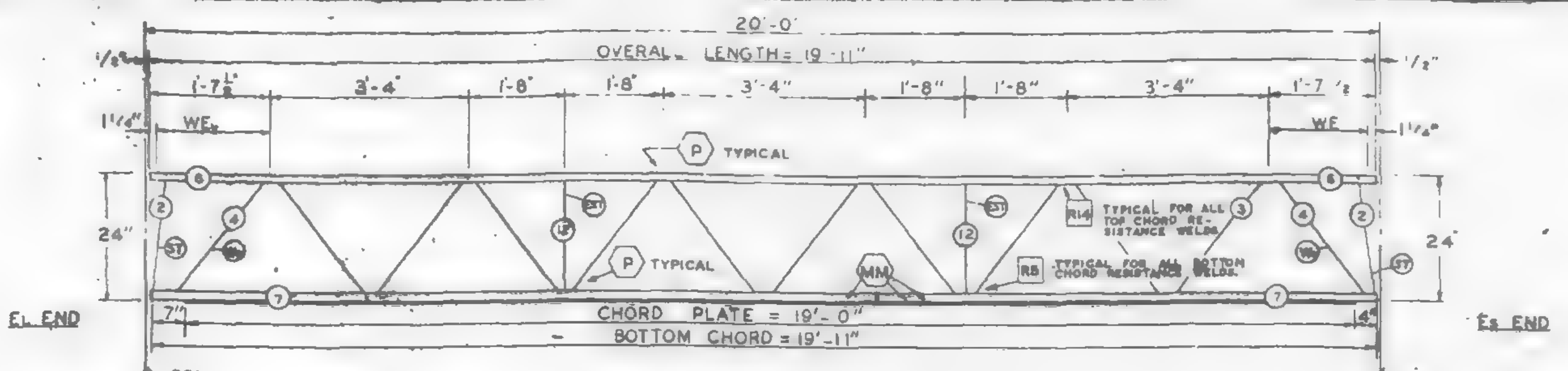
108

JW 7/5/68

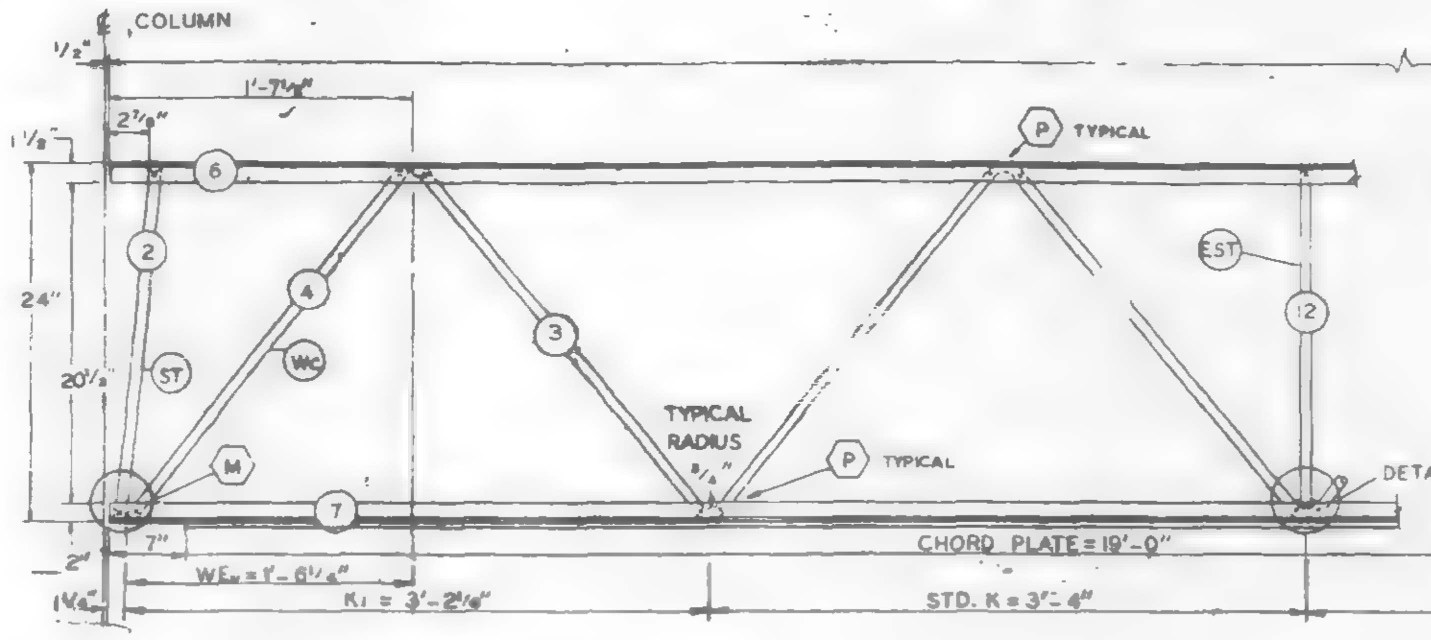
⚠1 6-26-68 AS NOTED

T.M.C

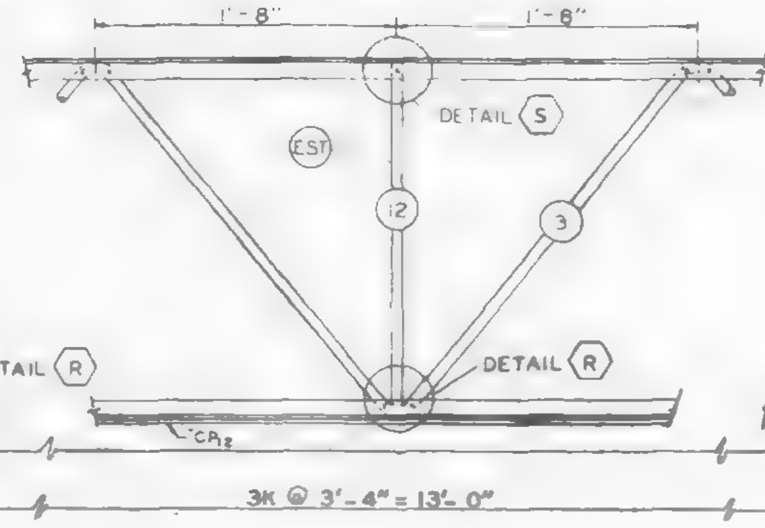
B



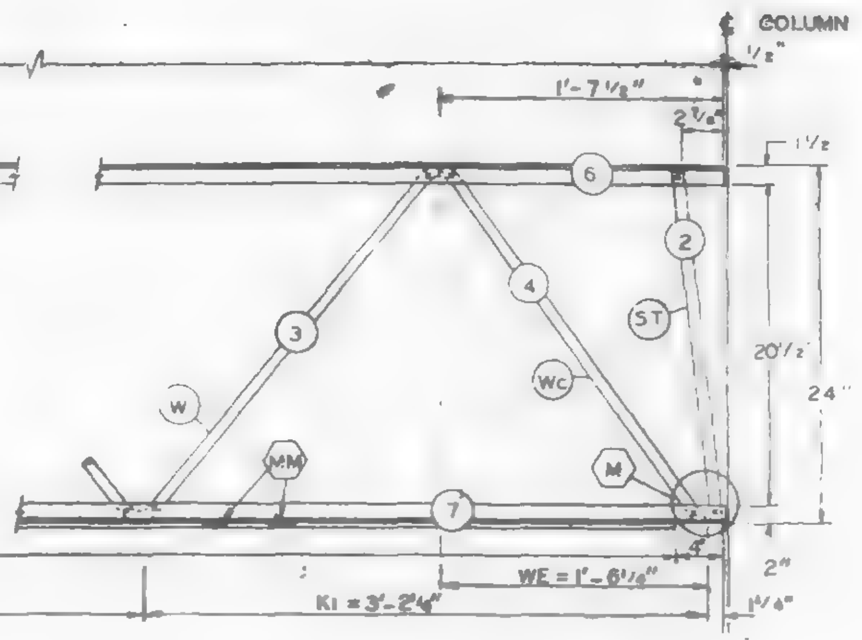
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT ES END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± ⅛"
DESIGN DEPTH	24	± ¼"
PANEL "K"	3'-4"	± ¼"
PANEL "K1"	3'-2¼"	± ¼"
WEB DEPTH	23⅝"	± ¼"
OVERALL LENGTH	19'-11"	± ⅛"

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST281 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. S
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. RS.
CHORD PLATE DETAILS SHOWN ON SHEET ST281.

REF. DWG.
7-AB2-1 — 4-1-68
7-AB2-3 — [illegible]
7-AB4-18.1 — 1-3-68
7-AB4-19, 28 & 41 — 1-3-68
7-AB4-38 — 4-1-68
7-AB4-MAIN — 8-17-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK	TYPE STEEL	SIZE	LENGTH
24T108-1911	6	A242	2"x 1½"x .31"	19'-11"	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	30.6⅞"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP2	A36	6½"x ½"	19'-0"

ES	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T108-1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEL	DIAGONAL "W" STRUT				INCLINED "ST" STRUT				END STIFFENER MK VS			END STIFFENER MK VE			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T108-1911	—	—	—	—	1'-6¾"	—	—	—	—	2	A242	1.14	1'-11½"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

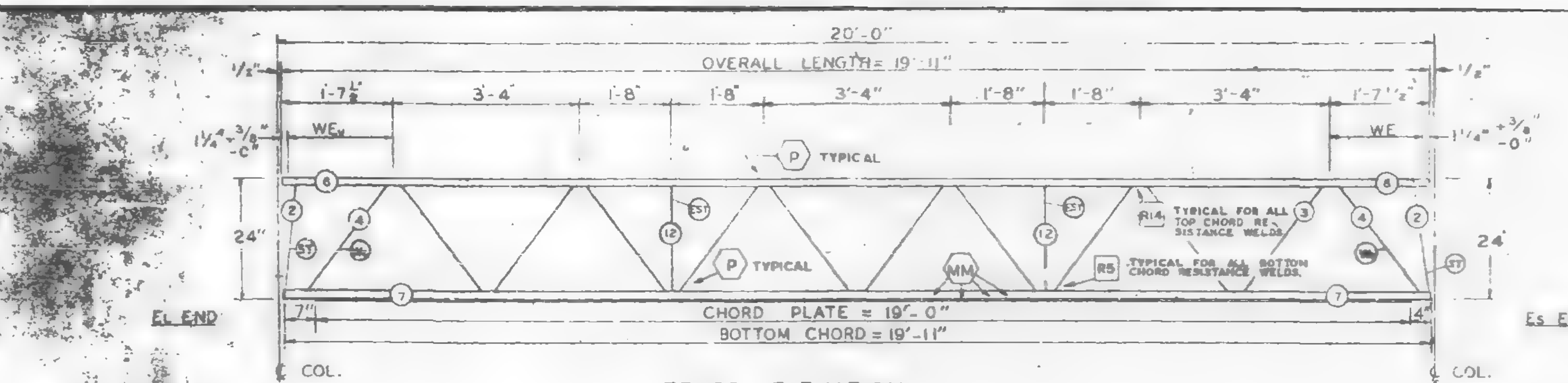
NO.	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

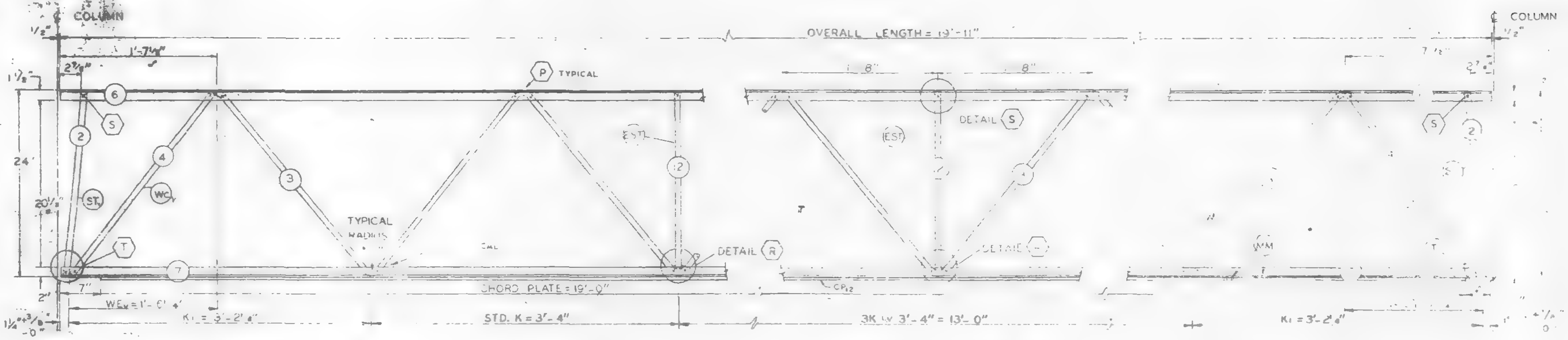
BRIDGING TRUSS 24T108 x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-[illegible] | PLATE
APPROVED FOR FABRICATION FOR PONYA: James White | DATE 6/6/68 | DRAWN BY [illegible] DATE MAY 24 1968
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA DATE MAY 24 1968 | IN CHARGE PROD. OL
LACLEDE STEEL CO. DETAILED BY A C WEBER | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST2108



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2¼"	± 1/8"
WEB DEPTH	23 1/8"	± 1/4"
OVERALL LENGTH	19'-11"	+ 3/8"

ALL PANEL POINTS RESISTANCE WELDED (*)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (***)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST28[illegible]
AND ST 91
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. [illegible]
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R5.
CHORD PLATE DETAILS SHOWN ON SHEET ST282

REF. DWG.

7-AB2-1	1-6
7-AB2-20	1-6
7-AB4-15.1	10-4
7-AB4-16	12-20
7-AB4-38	10-15
7-AB4-16,28,41	7-22
7-AB4-18	1-6

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED	–		NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10J-1911	6	A242	2"x1½"x.31"	19'-11"	7	A36	3"x2"x.33"	19'-11"	3	A242	1.14	25'-7½"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10 ⅞"	2			—	—	CP2	A36	6½"x½"	19'-0"

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10J-1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEL	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T10J-1911	—	—	—	—	1'-6¼"	—	—	–	—	2	A242	1.14	1'-11¾"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

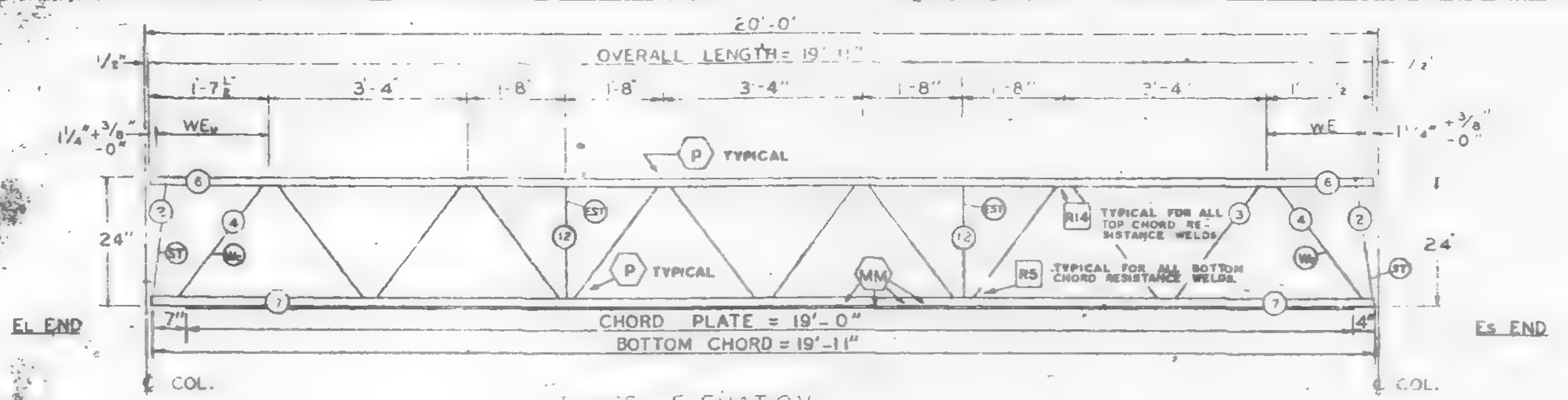
NO	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

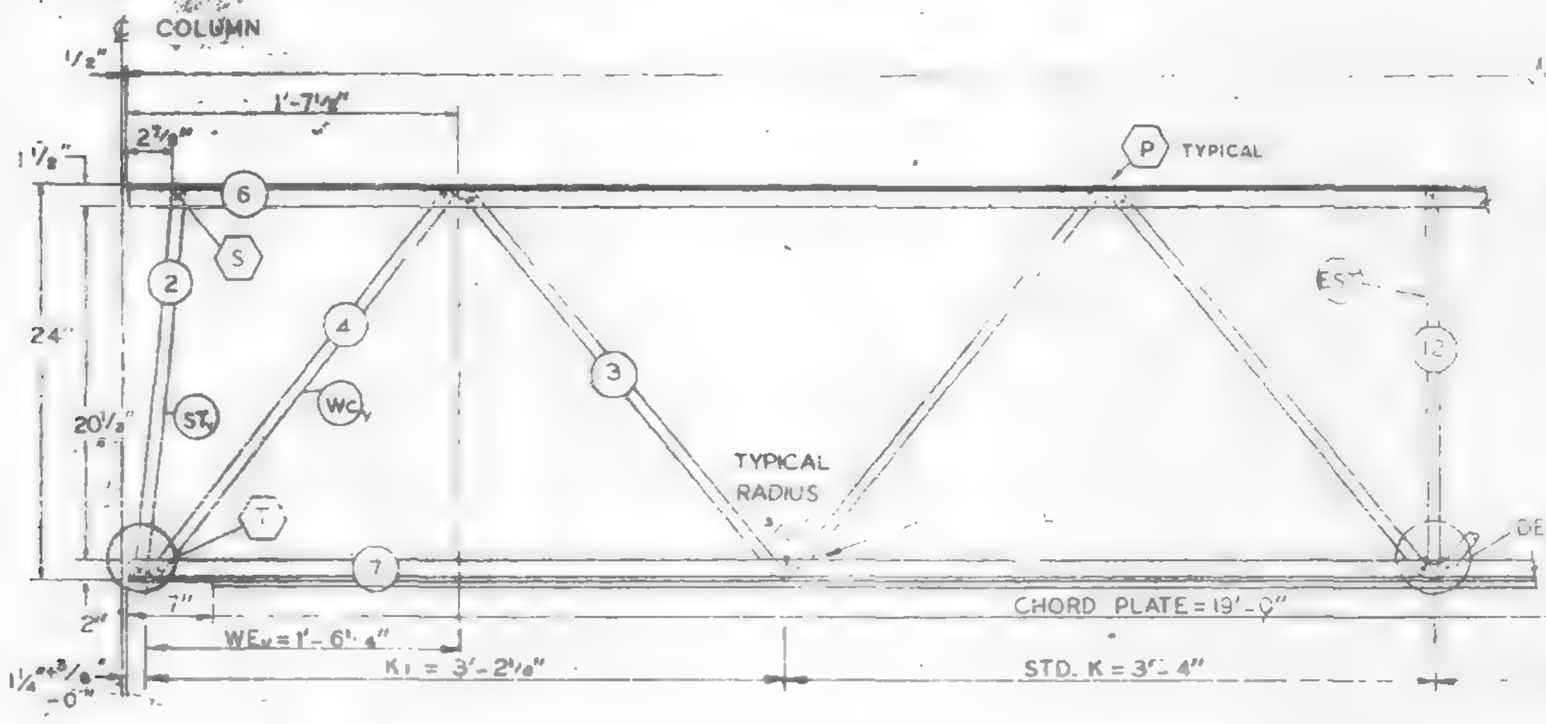
BRIDGING TRUSS 24T10J x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY

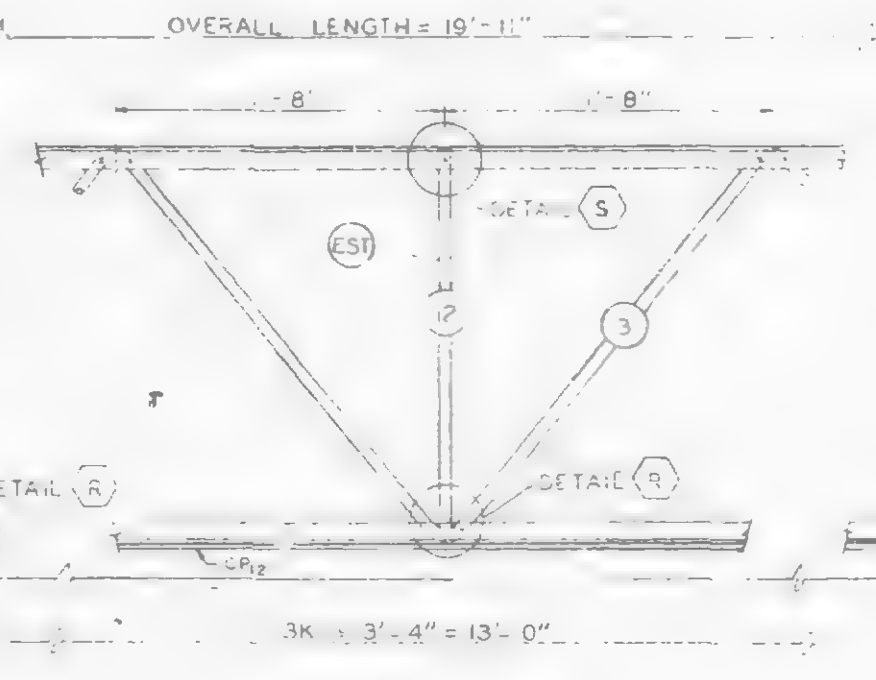
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-20	PLATE
APPROVED FOR FABRICATION BY [signature] FOR PONYA	DATE 2/10/69	DRAWN BY: [illegible] DATE 1-24-69	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE 1-24-69	IN CHARGE PROD. DEPT.
DETAILED BY A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET BT210



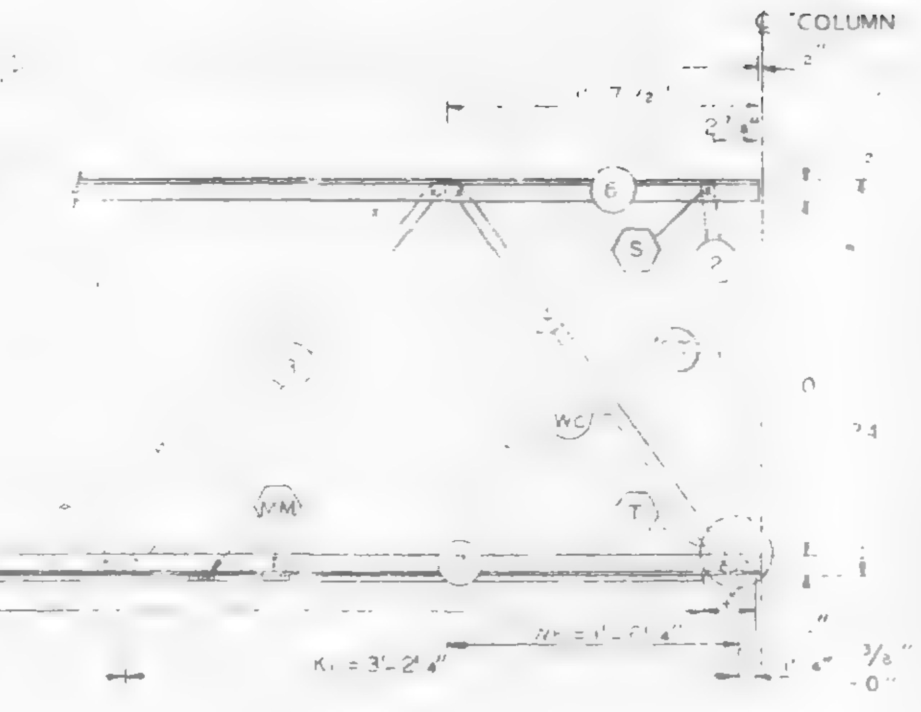
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	–	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL K	3'-4"	[illegible]
PANEL K₁	3'-2¼"	[illegible]
WEB DEPTH	23⅞"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (MM)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 AND ST291
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282

REF. DWG.

7-AB2-1	1-6-69
7-AB2-20	1-6-69
7-AB4-15.1	10-4-68
7-AB4-15	12-20-68
7-AB4-38	10-15-68
7-AB4-18,28,41	7-22-68
7-AB4-18	1-6-69

PAINT
LACLEDE ELECTROCOAT
REC. NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED	–		NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10K-1911	6	A242	2" x 1½" x .31"	19'-11"	7	A36	3" x 2" x .33"	19'-11"	3	A242	1.14	25'-7½"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CP₁₂	A36	6½" x [illegible]	19'-0"

Es END: TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10K-1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

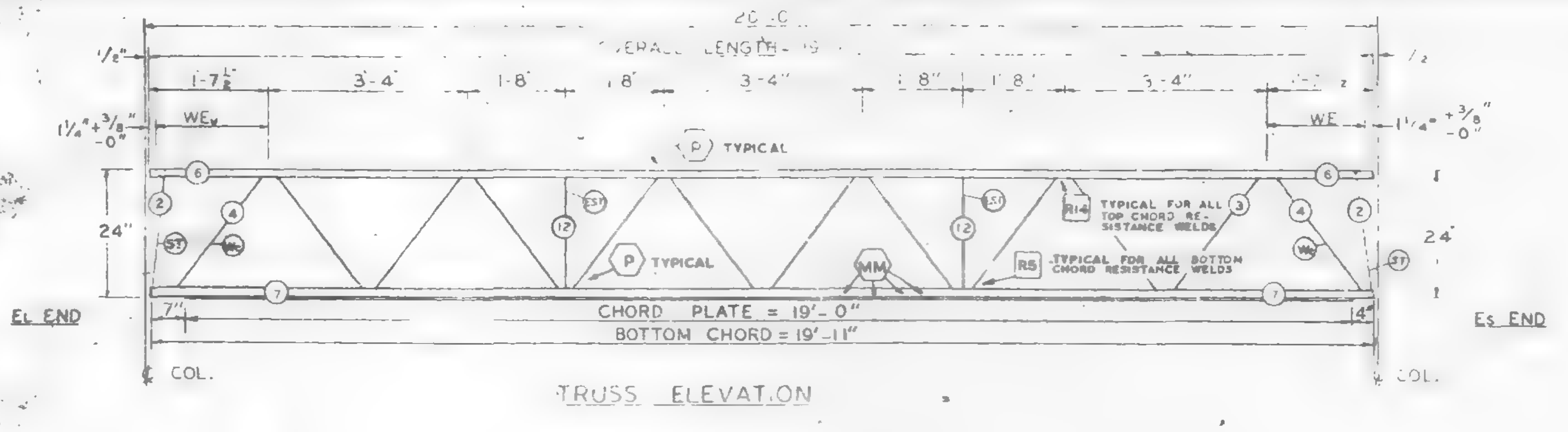
EL END: TRUSS DESIGNATION	BEARING ANGLES				WE₁	DIAGONAL "T" STRUT				INCLINED "ST₁" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc₁"				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10K-1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	1.14	1'-11¾"	—	—	—	—	—	—	4	A242	1	1.14	2'-5⅛"

NO.	DATE	REVISION	BY

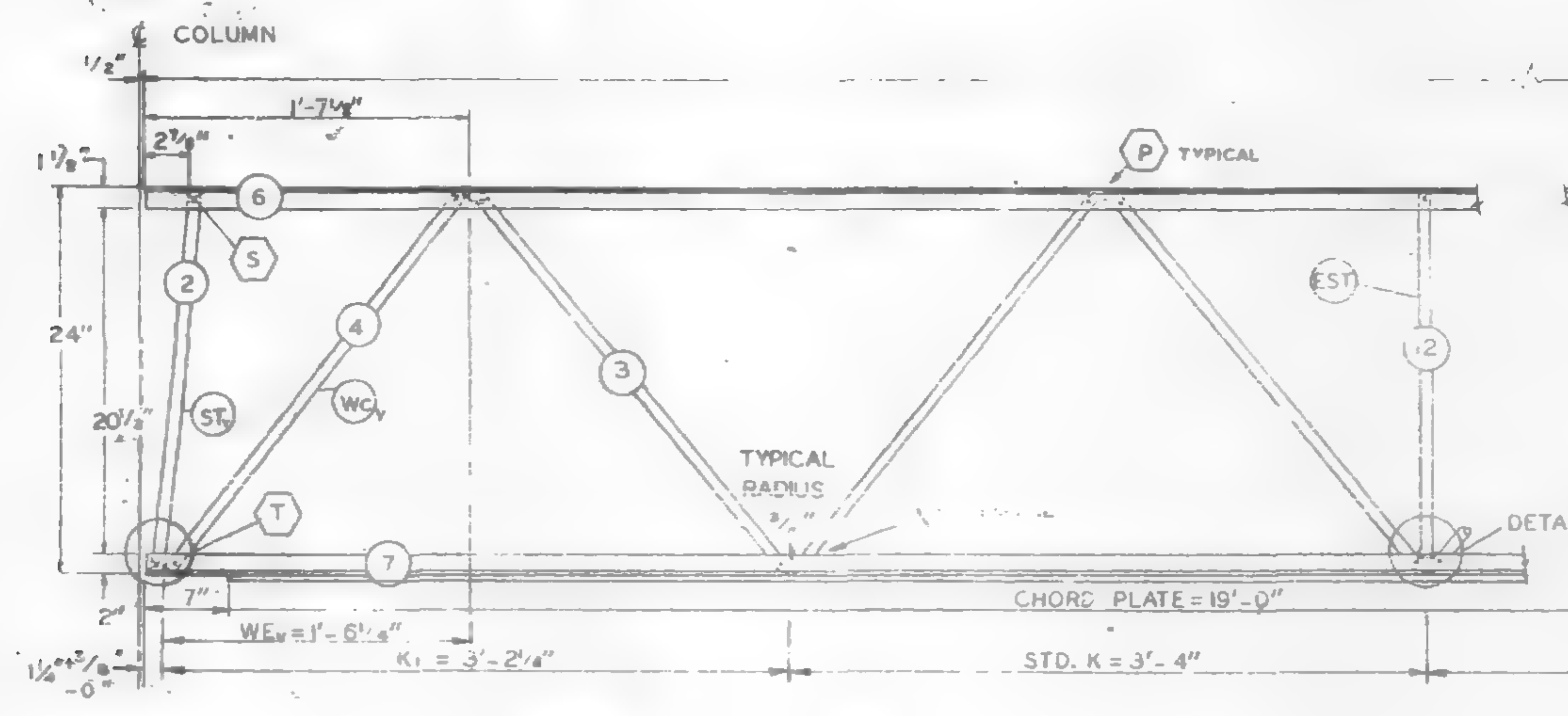
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T10K x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

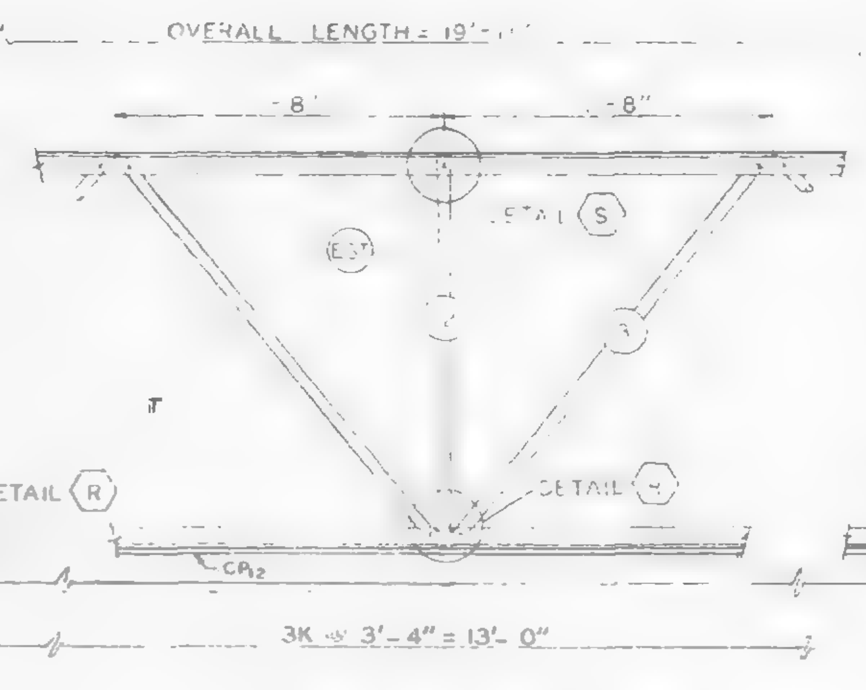
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-20 PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. DATE 2/10/69
DRAWN BY: [illegible] DATE 1-24-69
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE 1-24-69
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT. NO W.T.C. 221
SHEET NO. ST210K



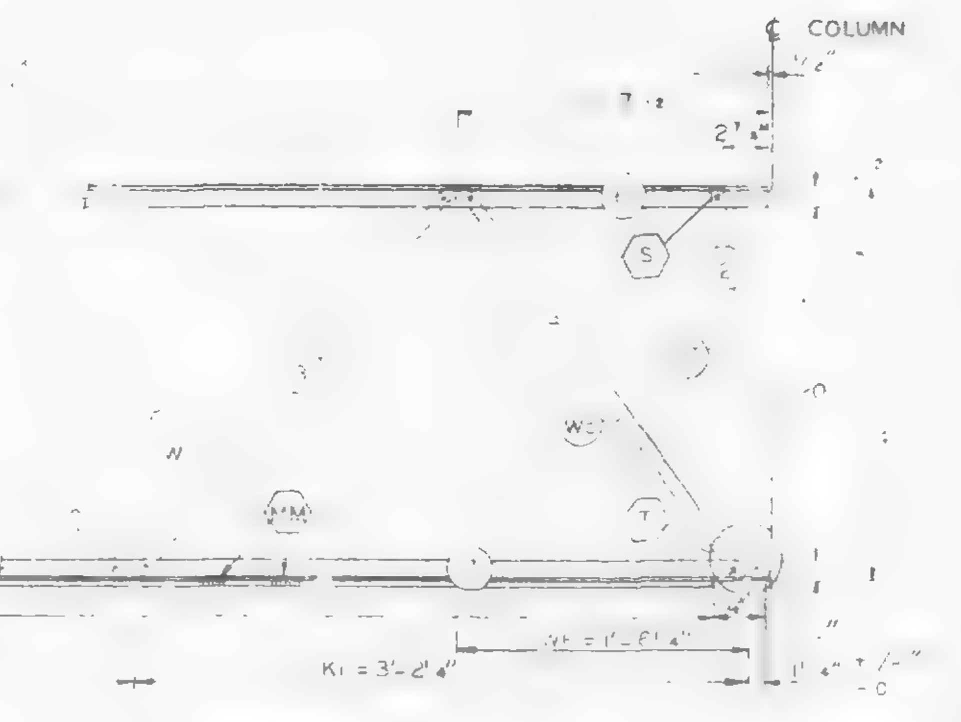
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0	[illegible]
DESIGN DEPTH	24"	±¼"
PANEL "K"	3'-4"	±¼"
PANEL "K1"	3'-2¼"	±¼"
WEB DEPTH	23⅞"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST282 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R5].
CHORD PLATE DETAILS SHOWN ON SHEET ST282

REF. DWG.

7-AB2-1	1-6-69
7-AB2-20	1-6-69
7-AB4-15.1	10-4-68
7-AB4-15	12-20-68
7-AB4-38	10-15-68
7-AB4-16,28,41	7-22-68
7-AB4-18	1-6-69

PAINT
L'ACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		CHORD PLATE			
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED	–		NO.	DIA.	MK.	TYPE STEEL	SIZE	LENGTH
24T10L -1911	6	A242	2"x 1½"x .31"	19'-11"	7	A36	3"x 2"x .33"	19'-11"	3	A242	1.14	25'-7½"	5K @ 3'-4" = 16'-8"	12	A242	1.14	1'-10⅞"	2			—	—	CR2	A36	6½"x ½"	19'-0"

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10L - 1911	1'-6¼"	2	A242	1.14	1'-11¾"	4	A242	1	1.14	2'-5½"

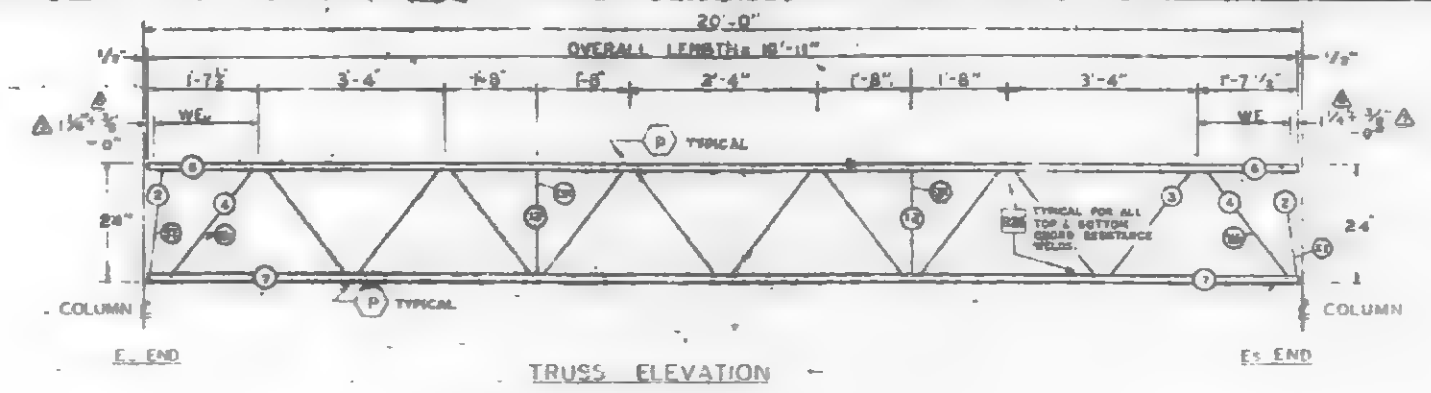
EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "STv" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wcv"				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T10L -1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	1.14	1'-11¾"	—	—	—	—	—	—	4	A242	1	1.14	2'-5½"

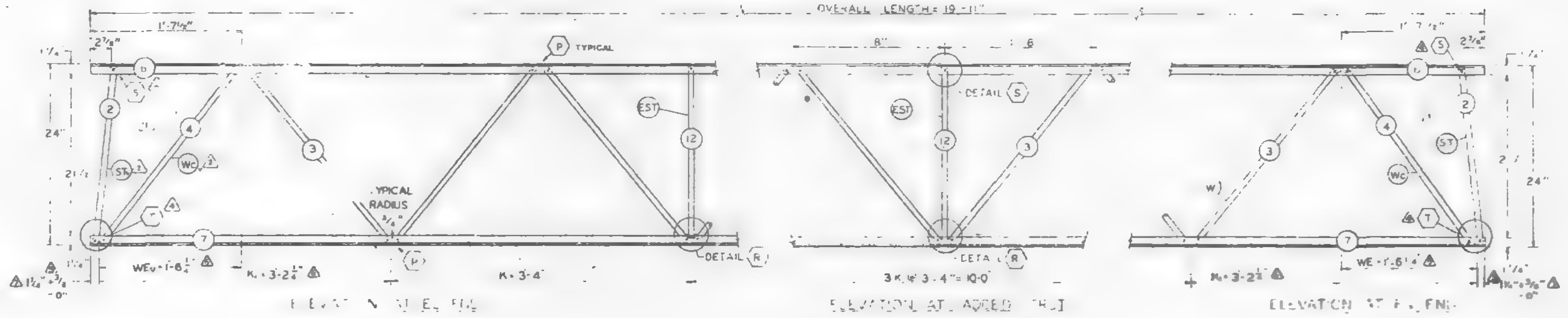
NO.	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
THE PORT OF NEW YORK AUTHORITY.

BRIDGING TRUSS 24T10L x 19'-11" LONG
WORLD TRADE CENTER TOWERS - A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-20 PLATE
APPROVED FOR FABRICATION [signature] FOR PONYA DATE 2/10/69
DRAWN BY [illegible] DATE 1-24-69
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE 1-24-69
IN CHARGE OF PROD. DEV
DETAILED BY A.C. WEBER
FABRICATION CONT NO. WTC 221
SHEET NO BT210L





FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K₁"	3'-2½	[illegible]
WEB DEPTH	23	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (R).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A)
⚠1 LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R29.

⚠5 REF DWG.

7-AB2-1	4-1-68
7-AB2-6	2-15-68
7-AB4-15.1	1-2-68
7-AB4-10.18	5-6-68
7-AB4-20, 19 & 41	1-3-68
7-AB4-36	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 1000

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL		LENGTH		MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA
24TII-1911	6	A242	1½x1¼x.230	19'-11"	7	A242	1¼x1¼x.230	19'-11"	3	A242	.75	29'-7⅛"	5K	3'-4" = 16'-8"	12	A242	.75	1'-10⅞"	2		—	—

E_S END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24TII-1911	1'-6¼"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5½"

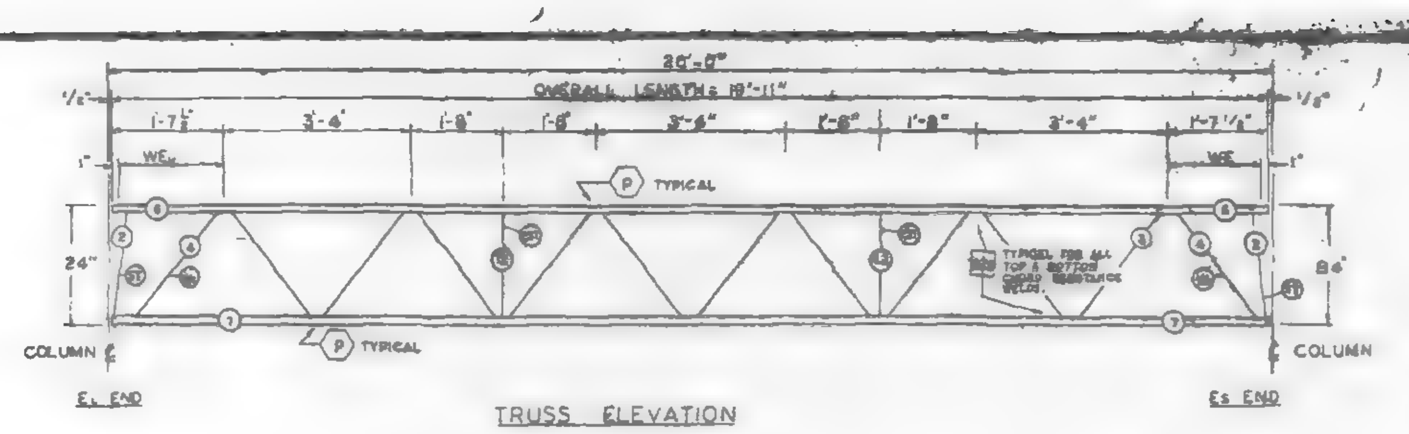
E_L END TRUSS DESIGNATION	BEARING ANGLES				WE_r	DIAGONAL "T" STRUT				INCLINED "ST" STRUT ⚠2				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc" ⚠2				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24TII-1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.75	1'-11¾"	—	—	—	—	—	—	4	A242	1	.75	2'-5½"

NO.	DATE	REVISION	BY
7	8-29-68	END DIST (2)	T.M.C.
6	8-26-68	AS NOTED	T.M.C.
5	7-27-68	END DIST (2)	T.M.C.
4	7-8-68	AS NOTED	T.M.C.
3	7-3-68	MAIN WEB	T.M.C.
2	6-26-68	AS NOTED	T.M.C.
1	3-19-68	WEB	J.R.P.

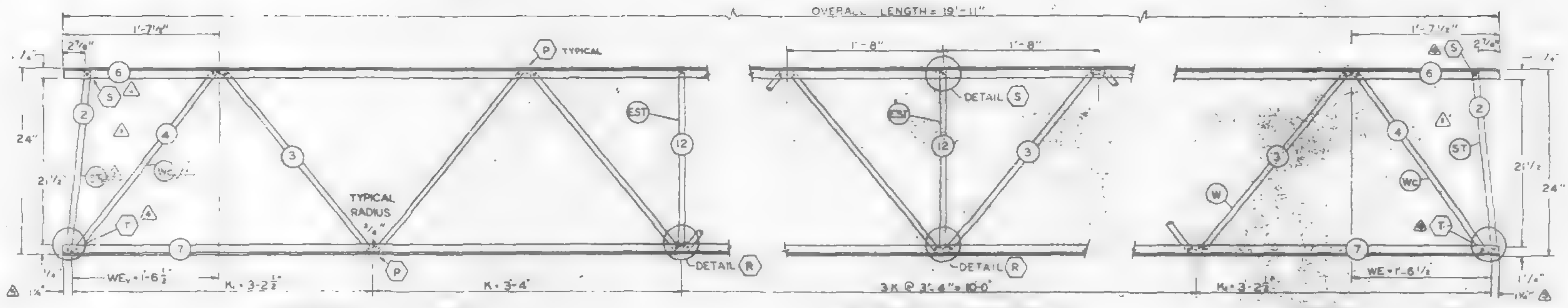
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24TII x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-6 PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White DATE 9/4/68
DRAWN BY ___ DATE FEB 24, 1968
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR DATE ___
CHECKED BY ___ DATE FEB 24, 1968
IN CHARGE OF PROD. ___
DETAILED LACLEDE STEEL CO.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. 872



TRUSS ELEVATION



ELEVATION AT E$_L$ END

ELEVATION AT ADDED STRUT

ELEVATION AT E$_S$ END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3-4"	[illegible]
PANEL "K$_L$"	3-2 1/2"	[illegible]
WEB DEPTH	23 1/2"	[illegible]
OVERALL LENGTH	19-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (MIN.)
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
△1 LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R29].

△2 REF DWG

7-AB2-1	4-1-68
7-AB2-6	2-15-68
7-AB4-15.1	1-2-68
7-AB4-18.19	5-6-68
7-AB4-28, 29 & 41	[illegible]-3-68
7-AB4-38	4-[illegible]-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24TH-1911	6	A242	1 1/2 x 1 1/4 x .230	19-11"	7	A242	1 1/2 x 1 1/4 x .230	19-11"	3	A242	.75	25'-7 1/2" △2	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 7/8" △2	2			—	—

E$_S$ END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TH-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

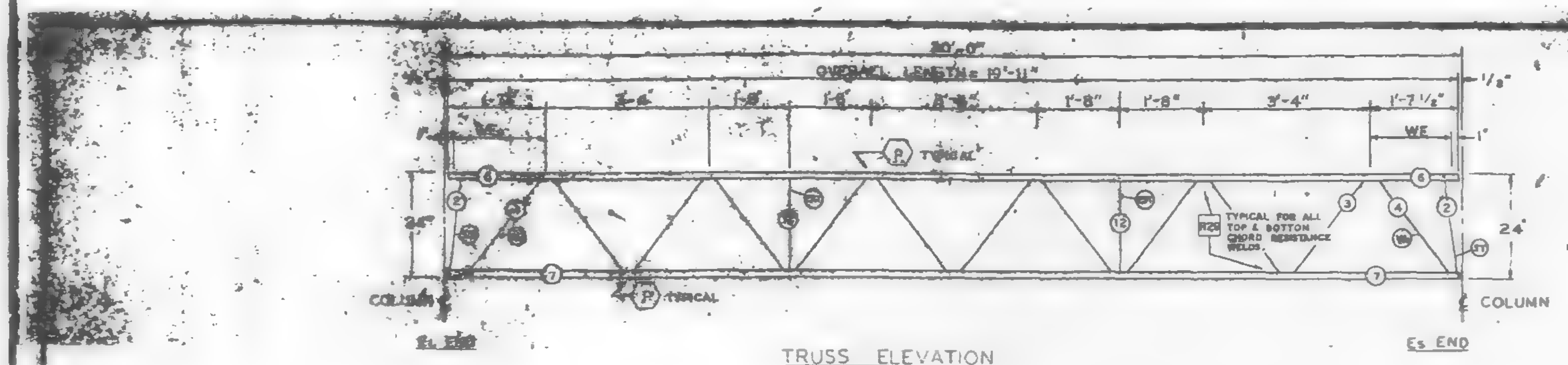
E$_L$ END	TRUSS DESIGNATION	BEARING ANGLES				WE$_L$	DIAGONAL "T" STRUT				INCLINED "ST" STRUT △2				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WC" △2				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TH-1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24TH x 19-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

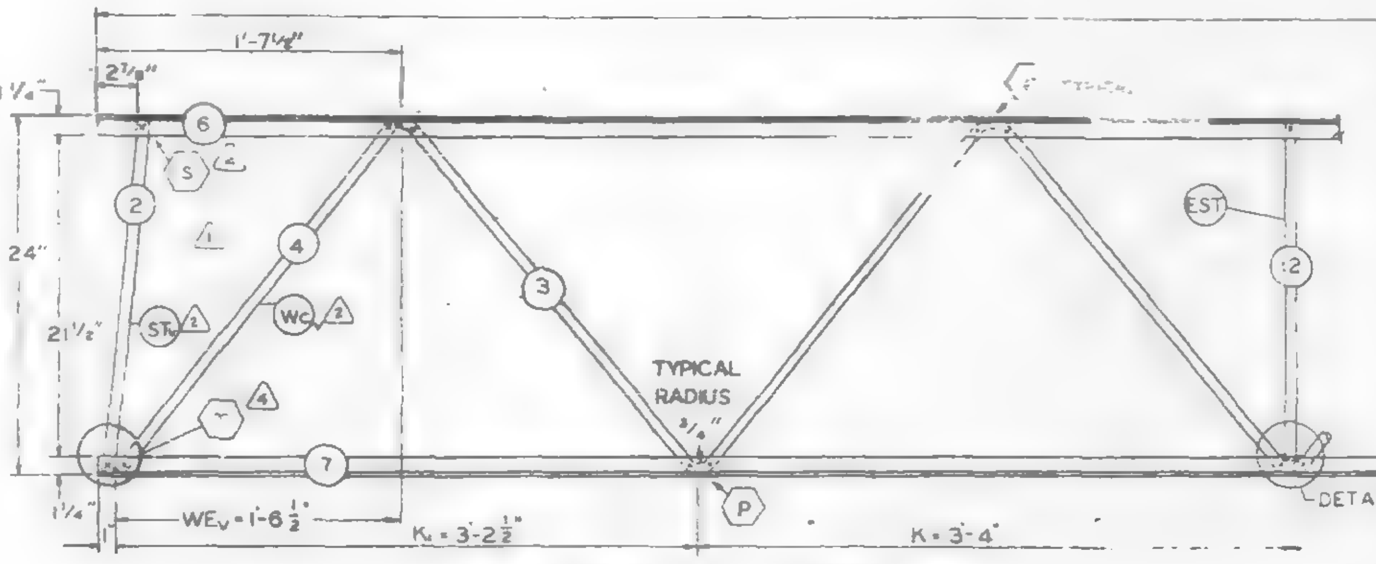
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A	DATE [illegible]/68	DRAWN BY [illegible] DATE FEB 24, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY LR PAUL DATE FEB 24, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT. NO W.T.C. 221	SHEET NO. BT211



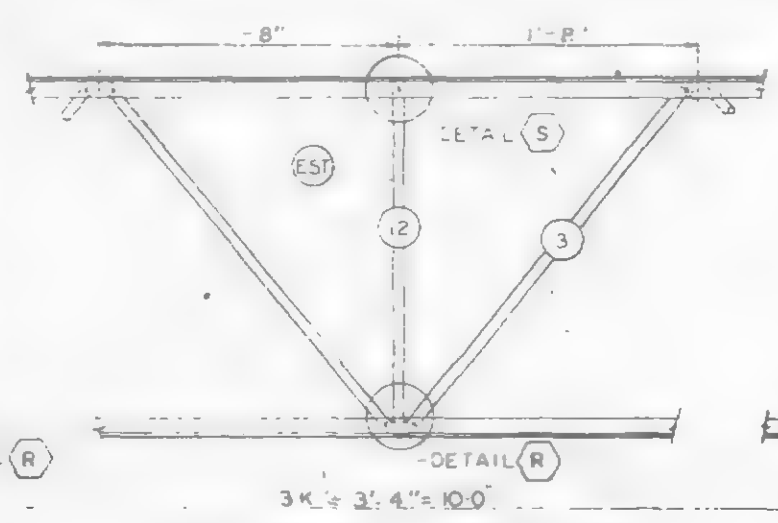
TRUSS ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K₁"	3'-2 1/2"	[illegible]
WEB DEPTH	23"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

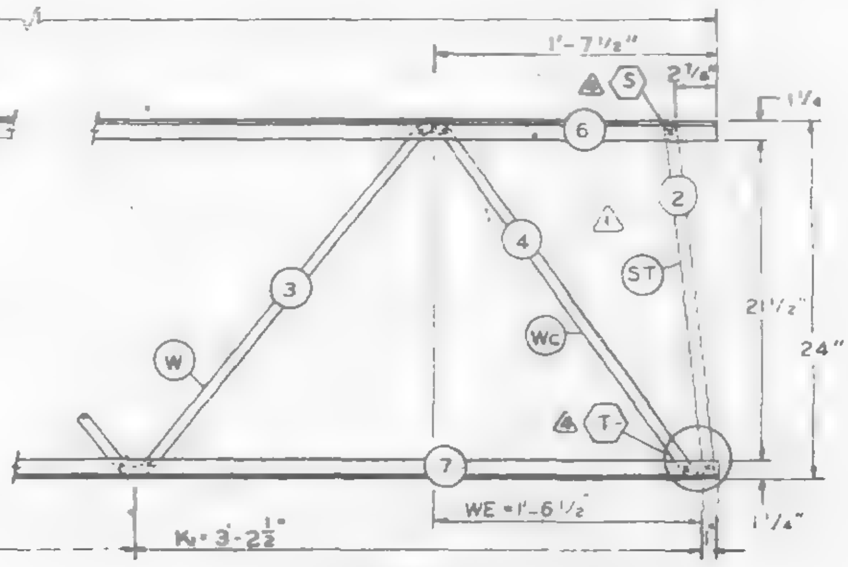
OVERALL LENGTH = 19'-11"



ELEVATION AT E_L END



ELEVATION AT ADDED STRUT



ELEVATION AT E_S END

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A)
(1) LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R29.

(2) REF. DWG. 7-AB2-1 4-1-68
7-AB2-6 2-15-68
7-AB4-15.1 1-2-68
7-AB4-18.18 5-6-68
7-AB4-28.19 & 41 1-2-68
7-AB4-36 4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN-WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24[illegible]	6	A242	1 1/2" x 1 1/4" x .230"	19'-11"	7	A242	1 1/2" x 1 1/4" x .230"	19'-11"	3	A242	.75	25'-7 1/2" (3)	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 7/8" (2)	2			—	—

E_S END	TRUSS DESIGNATION	WE	INCLINED 'ST' STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TII - 1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

E_L END	TRUSS DESIGNATION	BEARING ANGLES				WE_v	DIAGONAL "T" STRUT				INCLINED "ST_v" STRUT (2)				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc_v" (2)				
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TII - 1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

NO.	DATE	REVISION	BY
(4)	7-8-68	AS NOTED	T.M.C.
(3)	7-3-68	MAIN WEB	T.M.C.
(2)	6-28-68	AS NOTED	T.M.C.
(1)	3-19-68	WEB	J.R.P.

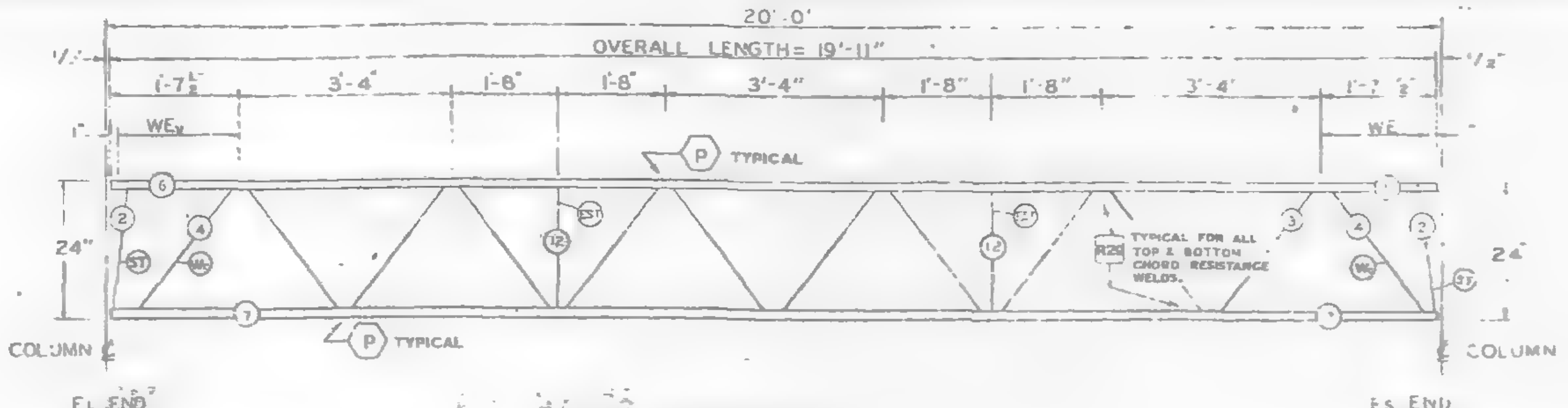
BRIDGING TRUSS DETAILS

WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

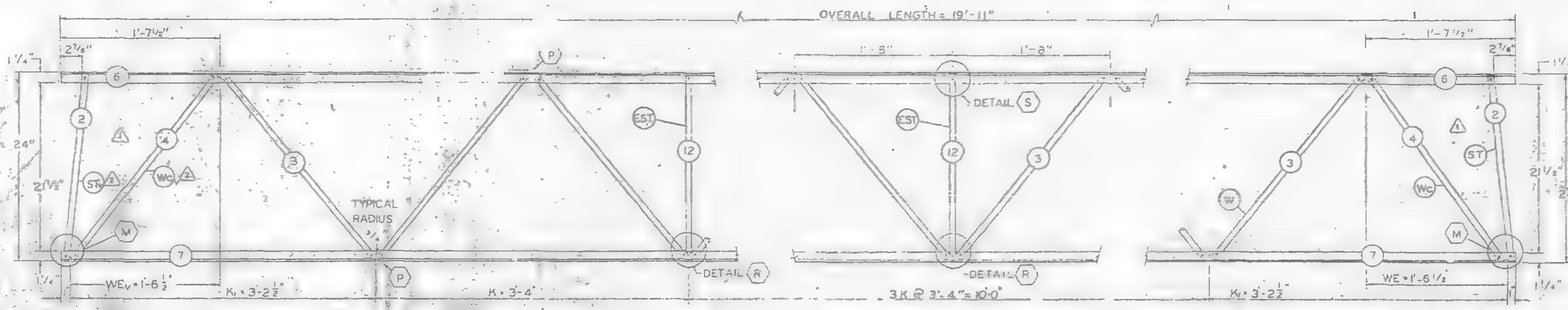
BRIDGING TRUSS 24TII x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY: JW FOR P.O.N.Y.A	DATE 7/9/68	DRAWN BY: [illegible] DATE FEB 24 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE FEB 24 1968	IN CHARGE OF PROD. DEV.
DETAILED LACLEDE STEEL CO.		FABRICATION CONT. NO W.T.C. 221	SHEET NO. BT211



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K₁"	3-2½"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x.). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▪▪▪). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).

△1 LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

△2 REF. DWG.

7-AB2-1	4-1-68
7-AB2-6	2-15-68
7-AB4-15.1	1-3-68
7-AB4-16.18	5-6-68
7-AB4-28, 19 & 41	1-3-68
7-AB4-36	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		NO.	DIA.
2[illegible]	5	A242	1½"x1¼"x.230"	19'-11"	7	A242	1½"x1¼x.230"	19'-11"	3	A242	.75	30-6½"	5K @ 3'-4" =16'-8"	12	A242	.75	1'-10 7/8" △2	2		—	—

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11-1911	1'-6½"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT △2				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc" △2				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11-1911	-	—	—	—	6½	—	—	—	—	2	A242	.75	1'-11½"	—	—	—	—	—	—	4	A242	1	.75	2'-5½"

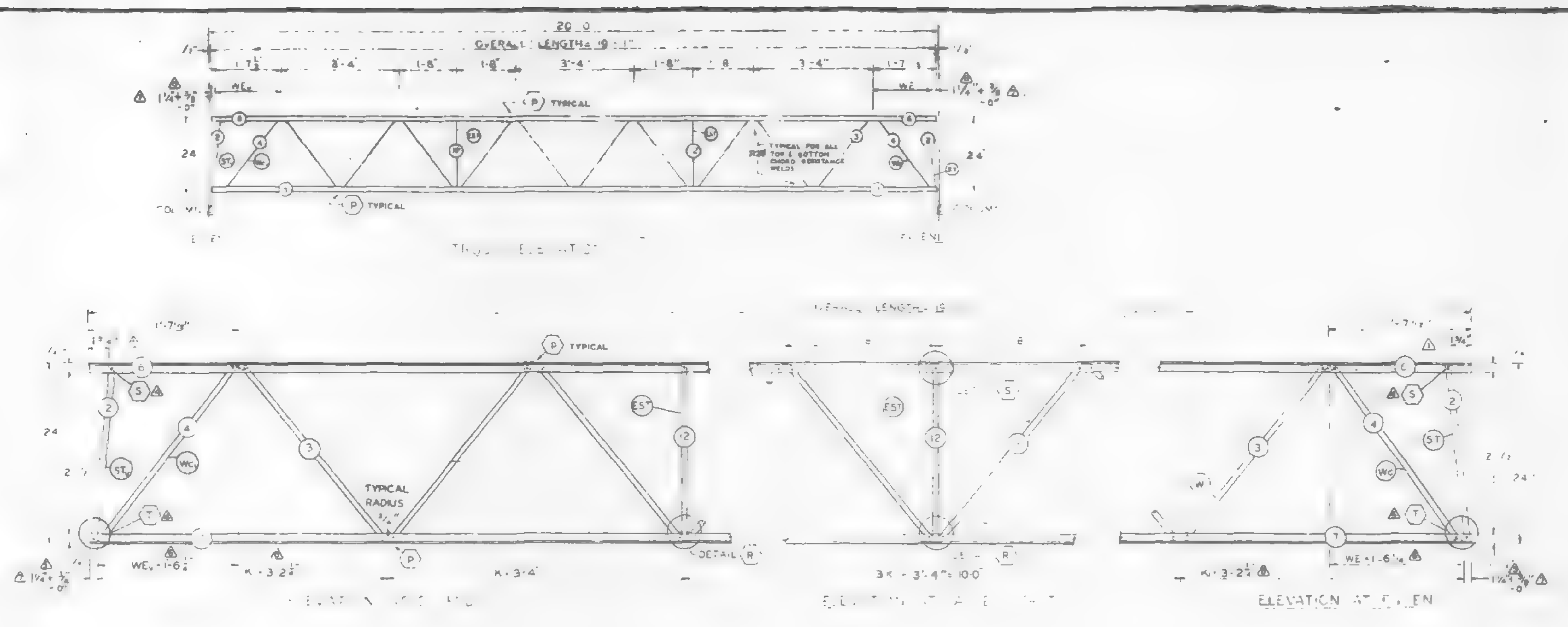
NO.	DATE	REVISION	BY
△2	6-26-68	AS NOTED	T.M.C.
△1	3-19-68	WEB	J.R.P.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY. JW FOR P.O.N.Y.A.	DATE 7/5/68	DRAWN BY DATE FEB 24, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY J.R. PAUL DATE FEB 24, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A. C. WEBER		FABRICATION CONT. NO. WTC 221	SHEET NO. BT211



FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "A"	3'-4"	[illegible]
PANEL "K"	3'-2½"	[illegible]
WEB LENGTH	23⅞"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED [illegible]
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES [illegible]
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R29.

REF DWG
7-AB2-1 — 4-1-68 (1)
7-AB2-[illegible] — [illegible]
7-AB4-[illegible] — [illegible]
7-AB4-18.19 — 5-6-68 (2)
7-AB4-20.21 — [illegible] (2)
7-AB4-39 — [illegible] (1)

PAINT
LACLEDE ELECTROCOAT
REC NO [illegible]

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					[illegible] "ST" STRUT				[illegible]	FILLER	
	MK	TYPE STEEL	SIZE	LENGTH	MK	TYPE STEEL	SIZE	LENGTH	MK	STEEL	Ø	LENGTH	NO. OF P	MK	STEEL	DIA	LENGTH	[illegible]	NO.	DIA
24THA-1911	6	A242	1½×1"×.230	19'-11"	7	A242	1"×1"×.230	19'-11"	3	A242	.75	25'-7⅛"	5K ± 3'-4" = 16'-8"	12	A242	.75	1'-10"	2	—	—

E_S END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24THA-1911	1'-6¼"	2	A242	.75	[illegible]¾"	4	A242	1	.75	2'-5½"

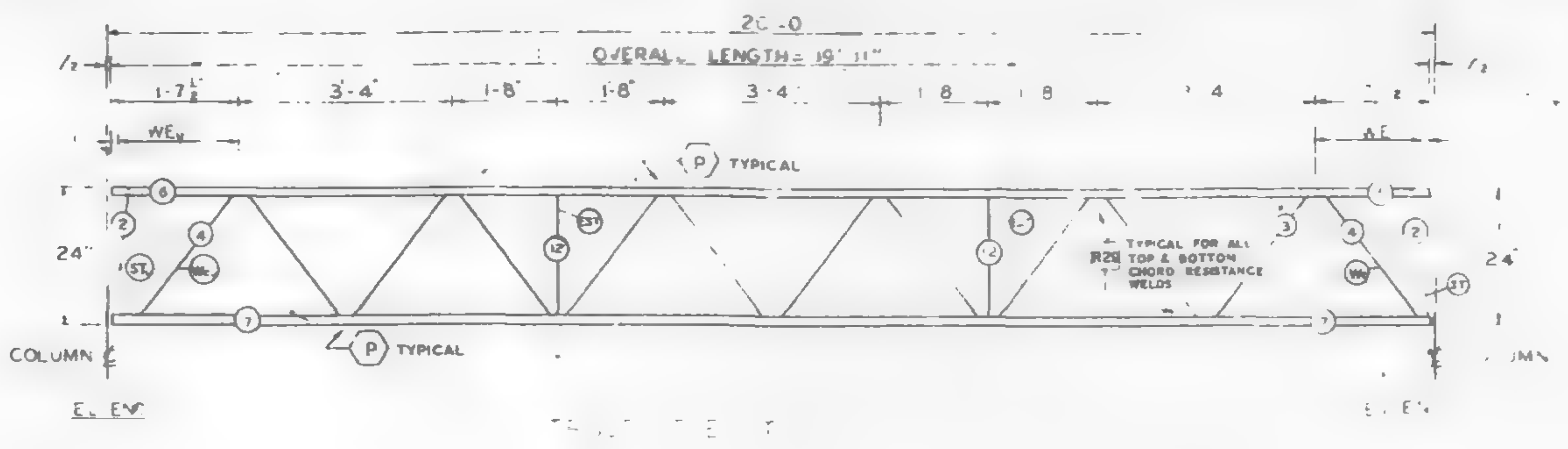
E_L END TRUSS DESIGNATION	BEARING ANGLES				WE_T	DIAGONAL "T_V" STRUT				INCLINED "ST_V" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WC_V"				
	MK	TYPE STEEL	SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24THA-1911	—	—	—	—	6¼	—	—	—	—	2	A242	.75	1'-11⅜"	—	—	—	—	—	—	4	A242	1	.75	2'-5½"

NO.	DATE	REVISION	BY
7	8-29-68	END DIST (2)	T.M.C.
6	8-28-68	AS NOTED	T.M.C.
5	7-27-68	END DIST (2)	T.M.C.
4	7-8-68	AS NOTED	T.M.C.
3	7-3-68	MAIN WEB	T.M.C.
2	6-26-68	LENGTH OF "EST" REF DWG	T.M.C.
1	4-25-68	END STRUT DIMENSIONS	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24THA × 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-6 PLATE
APPROVED FOR FABRICATION BY [signature] FOR PONYA — DATE 9/4/68
DRAWN BY [illegible] DATE FEB 26 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR — DATE
CHECKED BY J.R.PAUL DATE FEB 26 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT NO WTC 221
SHEET NO BT211A



FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K₁"	3'-2½"	± 1/4"
WEB DEPTH	23⅛"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (& ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ( ) ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. ⟨A⟩ LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"							VERTICAL "EST" STRUT			TRUSS DATA	FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH				MK	TYPE STEEL	LENGTH		NO.	DIA
[illegible]-911	6	A242	1½ x 1¼ x 230	19'-11"	7	A242	1½ x 1¼ x 230	19'-11"	3	A242	.75	25'-7⅛" ⚠3	5K	3'-4" = 6'-8"	12		A242	.75	1'-[illegible] ⚠2	—	—

Es END TRUSS DESIGNATION	[illegible]	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T11A-1911	1'-6½"	2	A242	.75	1'-11⅜"	4	A242	1	.75	2'-5⅛"

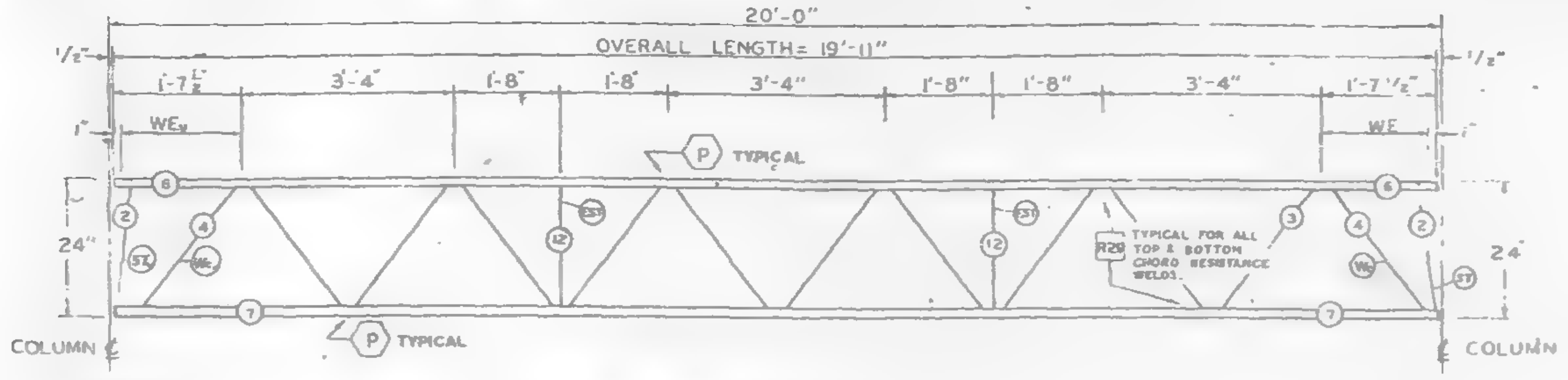
EL END TRUSS DESIGNATION	BEARING ANGLES			WEv	DIAGONAL "Tv" STRUT				INCLINED "STv" STRUT				END STIFFENER						WEB "Wcv"				
	MK	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T11A-1911	—	—	—	1'-6½"	—	—	—	—	2	A242	.75	1'-11⅜"	—	—	—	—	—	—	4	A242	1	.75	2'-5⅛"

NO.	DATE	REVISION	BY
⚠4	7-8-68	AS NOTED	T.M.C.
⚠3	7-3-68	MAIN WEB	T.M.C.
⚠2	6-26-68	LENGTH OF "EST", REF. DWG	T.M.C.
⚠1	4-25-68	END STRUT DIMENSIONS	T.M.C.

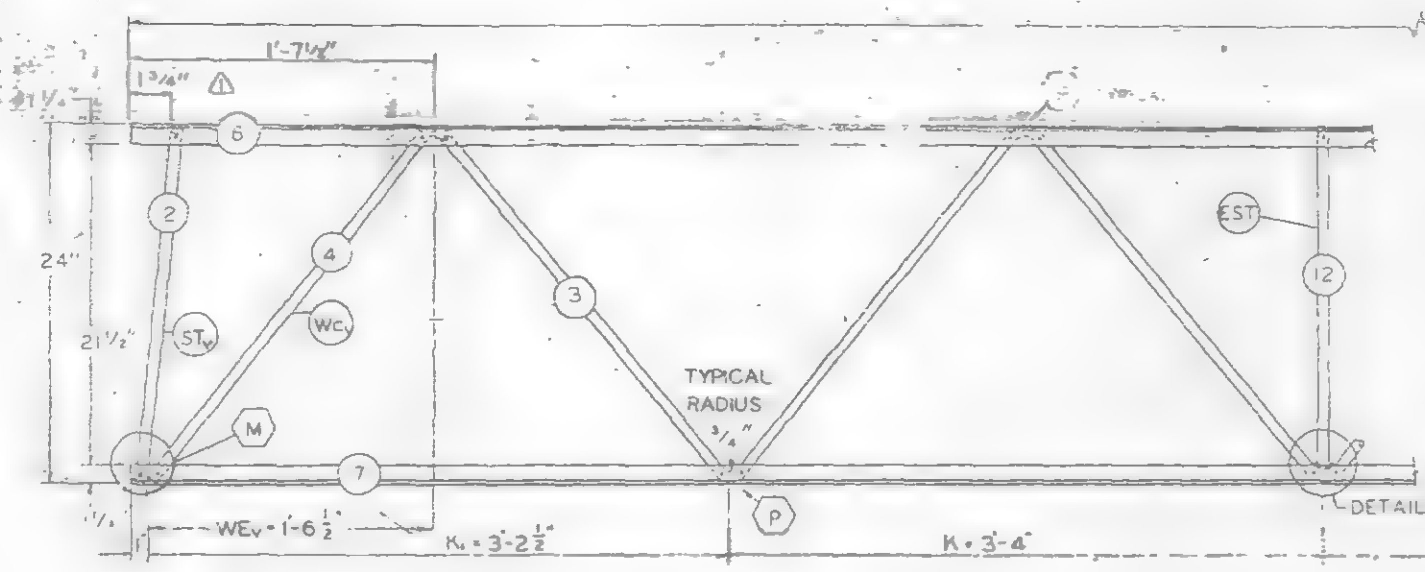
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

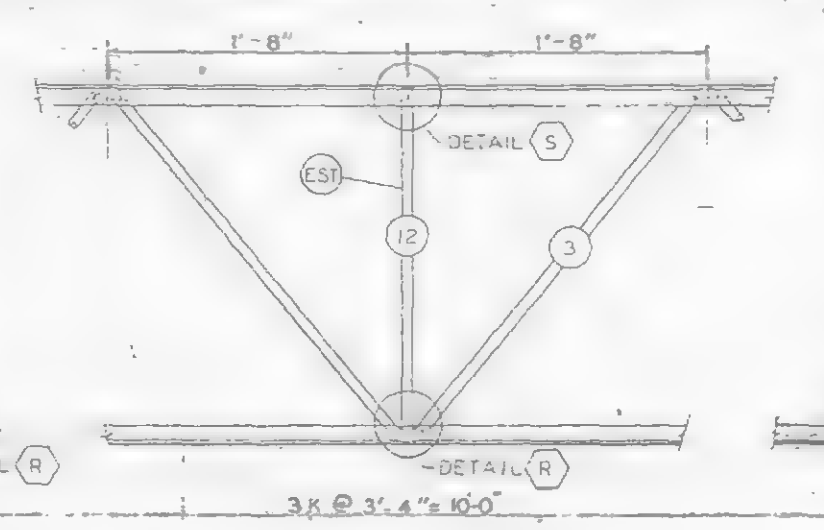
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7 AB2-6
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 7/9/68
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DRAWN BY [illegible] DATE FEB 24, 1968
CHECKED BY J.R. PAUL DATE FEB 24, 1968
IN CHARGE OF PROD.
DETAILED BY A.C. WEBER
FABRICATION CONTRACT NO. WTC 221
SHEET NO. BT21A



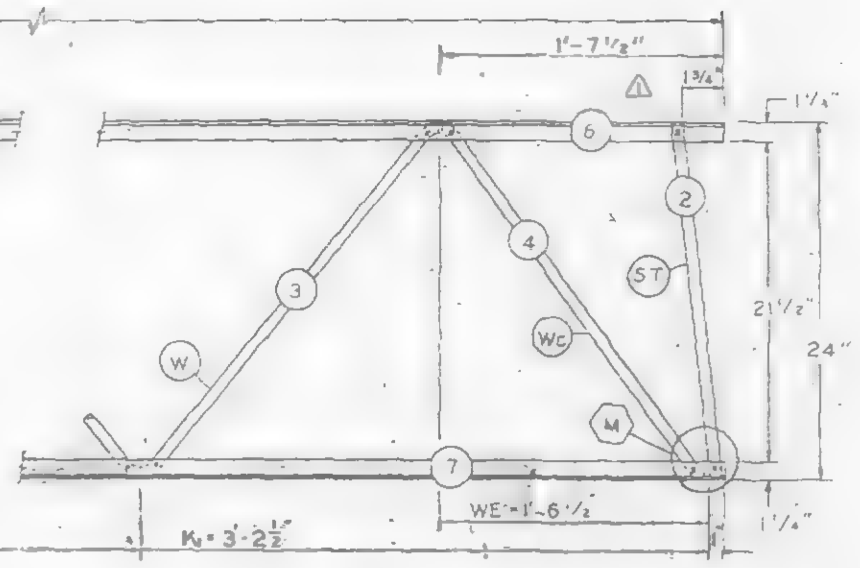
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R29.

REF. DWG.

7-AB2-1	4-1-68	△2
7-AB2-5	2-15-68	
7-AB4-15,1,19	1-3-68	△2
7-AB4-16,18	5-6-68	△2
7-AB4-28,41	1-3-68	△2
7-AB4-38	4-1-68	△2

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA
..-1911	E	A242	1 1/2" x 1 1/4" x .230"	19'-11"	7	A242	1 1/2" x 1 1/4" x .230"	19'-11"	3	A242	.75	30'-6 1/2"	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 7/8" △2	2			—	—

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11A-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

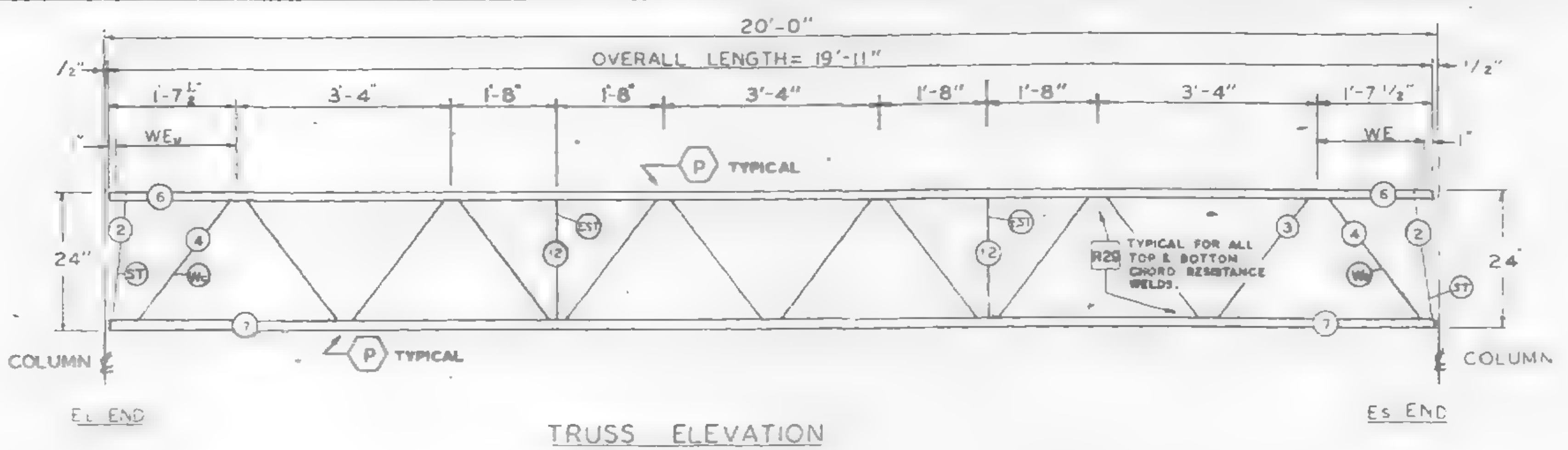
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "Tv" STRUT				INCLINED "STv" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wcv"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11A-1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

NO.	DATE	REVISION	BY
△2	6-26-68	LENGTH OF "EST." REF. DWG.	T.M.C.
△1	4-25-68	END STRUT DIMENSIONS	T.M.C.

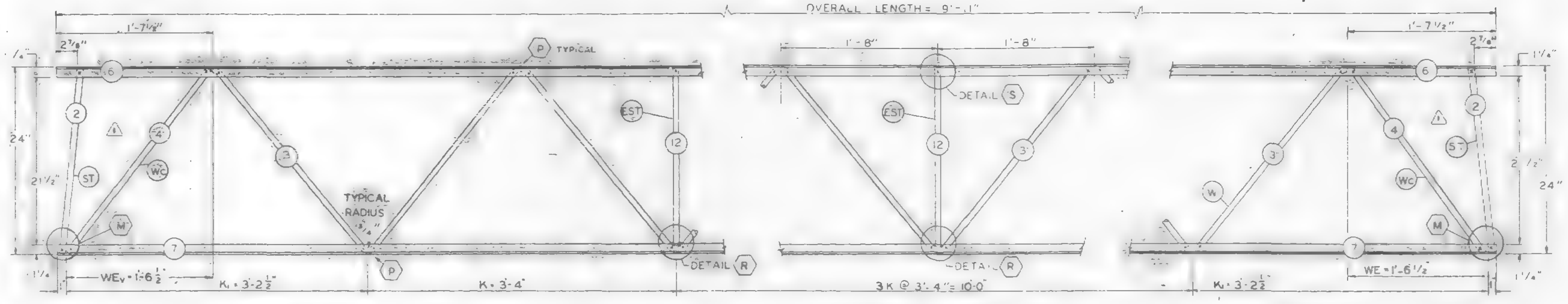
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-6
PLATE
APPROVED FOR FABRICATION BY GW FOR P.O.N.Y.A. DATE 7/5/68
DRAWN BY ... DATE FEB 24,1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB 24,1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST211A



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).

(1) LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R29].

REF. DWG.

7-AB2-1	2-15-68
7-AB2-6	2-15-68
7-AB4-15.1	10-27-67
7-AB4-16.18 & 19	1-3-68
7-AB4-28, 38 & 41	1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T11 - 1911	6	A242	1 1/2"x1 1/4"x.230	19'-11"	7	A242	1 1/2"x1 1/4"x.230	19'-11"	3	A242	.75	30'-6 1/2"	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 1/8"	2			—	—

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11 - 1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEV	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WC"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11 - 1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

NO.	DATE	REVISION	BY
(1)	3-19-68	WEB	J.R.P.

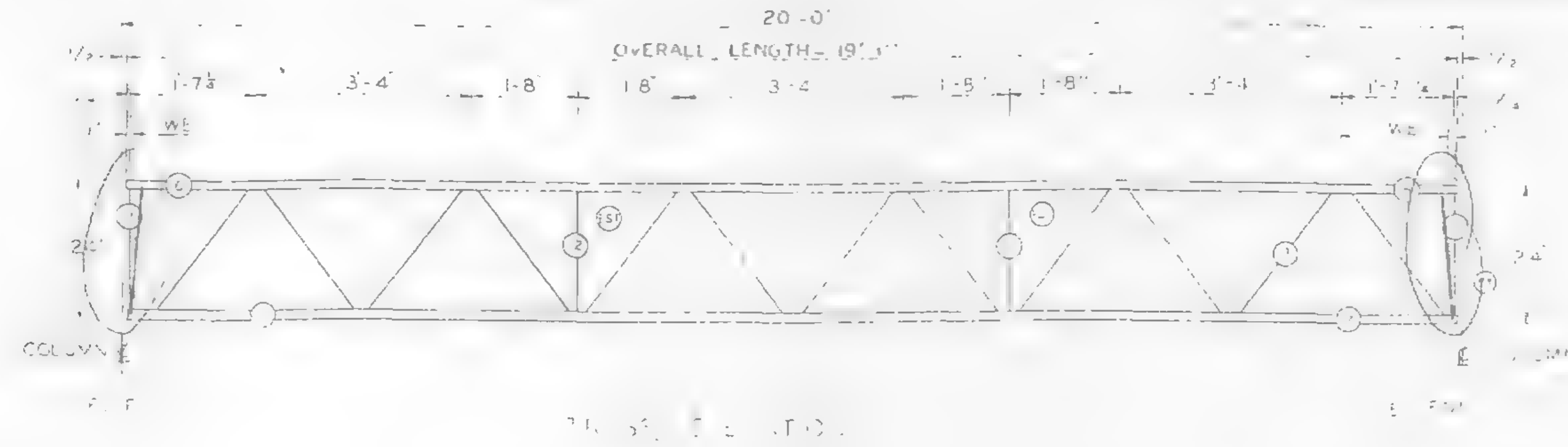
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

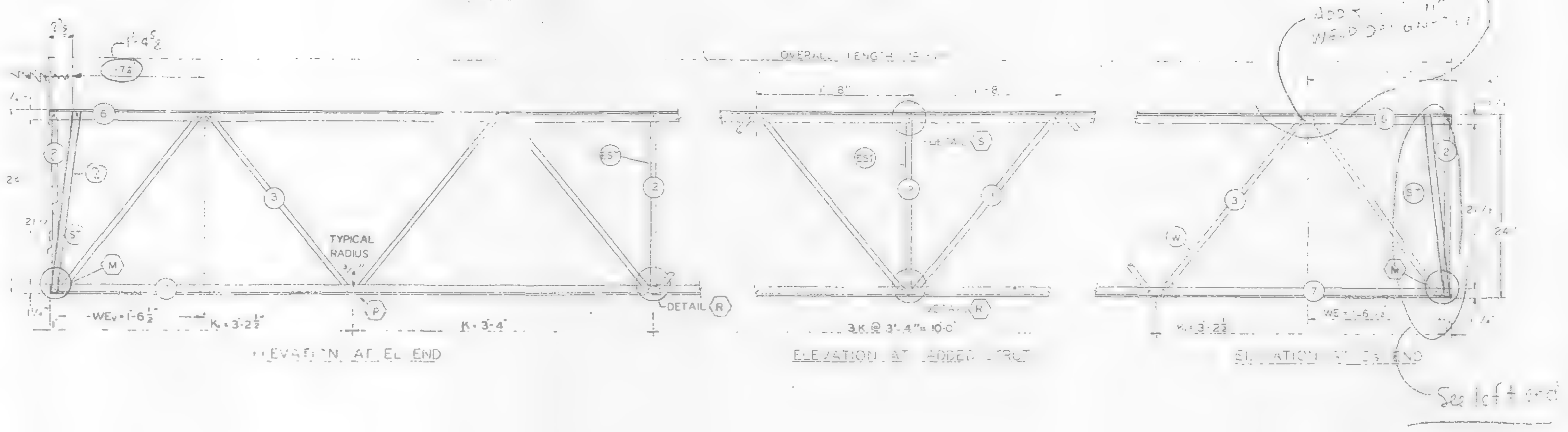
FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-8	PLATE
APPROVED FOR FABRICATION BY ___ FOR P.O.N.Y.A.	DATE 4/24/68	DRAWN BY: ___ DATE FEB 24, 1968	
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR	DATE	CHECKED BY: JR PAUL DATE FEB 24, 1968	IN CHARGE OF PROD DEV
DETAILED BY A C WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. BT211

LACLEDE STEEL CO.



	DESIGN	TOLERANCE
FABRICATION REQUIREMENTS		
CAMBER AT [illegible] SPAN	0"	± ¾"
DESIGN DEPTH	24"	± ¼"
[illegible]	3'-4"	± ¼"
[illegible]	3'-2½"	± ¼"
[illegible]	23½"	± ¼"
[illegible] LENGTH	9'-1"	± ⅜"



ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (IIIIII)
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291.
BOXED LETTERS INDICATE WELD DETAIL, ie. (A).

REF DWG.

7-AB2-1	2-15-68
7-AB2-6	2-15-68
7-AB4-15.1	10-20-67
7-AB4-16,18 & 19	1-3-68
7-AB4-28, 38 & 41	1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T11-1911	6	A242	1½x1¼x230	19'-11"	7	A242	1½x1¼x230	19'-11"	3	A242	.75	30'-6⅜"	[illegible]	12	A242	.75	[illegible]	2				

Es END TRUSS DESIGNATION	WE	VERTICAL (INCLINED) "ST" STRUT			
		MK	TYPE STEEL	DIA	LENGTH
24T11-1911	1'-6½"	2	A242	.75	1'-11¾"

EL END TRUSS DESIGNATION	BEARING ANGLES				WE$_V$	DIAGONAL "T" STRUT				INCLINED (VERTICAL) "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6		
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH
24T11-1911	—	—	—	—	1'-6½"	—	—	—	—	2	A242	.75	1'-11¼"	—	—	—	—	—	—

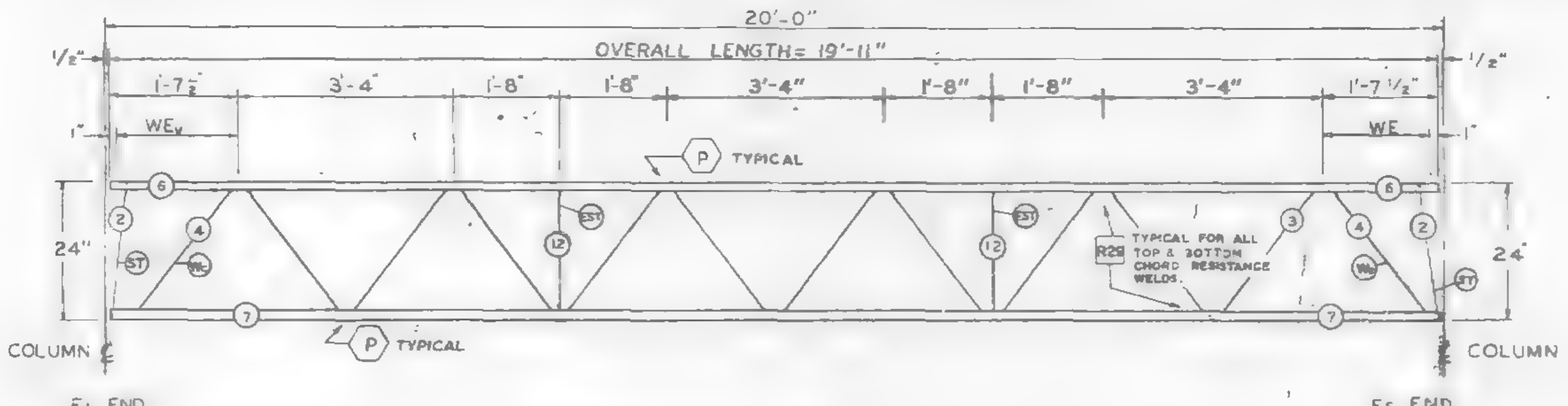
SKILLING, HELLE
CHRISTIANSEN, ROBERTSON
Structural & Civil Engineers
X
3/22/67 SK.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

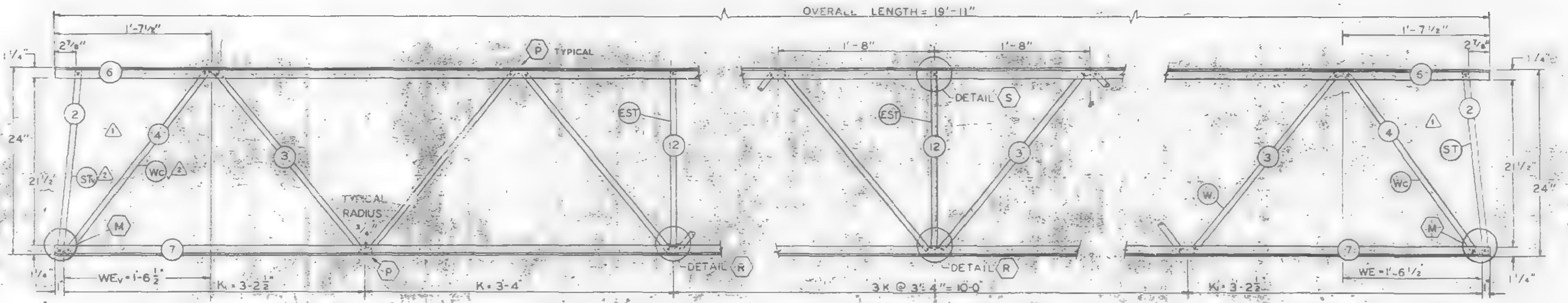
BRIDGING TRUSS 24T11 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY ____ FOR PON YA	DATE	DRAWN BY [illegible] DATE FEB 24, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY J R PAUL DATE FEB 24, 1968	IN CHARGE OF PROD DEV
LACLEDE STEEL CO. DETAILED BY A C WEBER		FABRICATION CONT NO W T C 221	SHEET NO BT211



TRUSS ELEVATION



ELEVATION AT EL END — ELEVATION AT ADDED STRUT — ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PAN "K1"	3'-2½"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ( ).
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
(1) LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R29].

(2) REF. DWG.

7-AB2-1	4-1-68
7-AB2-6	2-15-68
7-AB4-15.1	1-3-68
7-AB4-16.18	5-5-68
7-AB4-28, 19 & 41	1-3-68
7-AB4-38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K.	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
24TII - 1911	6	A242	1½"x1¼"x.230"	19'-11"	7	A242	1½"x1¼"x.230"	19'-11"	3	A242	.75	25'-7½" (2)	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10⅞" (2)	2			—	—

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK.	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TII - 1911	1'-6½"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5½"

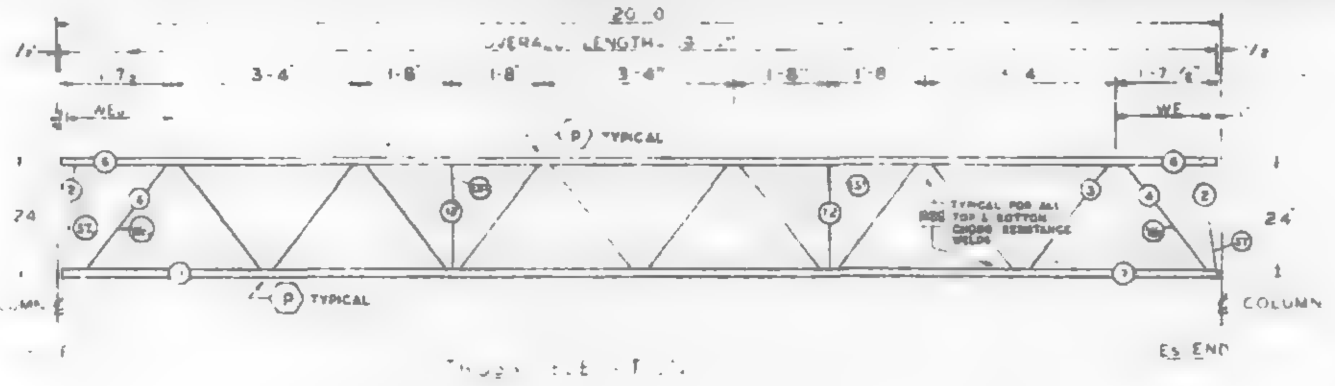
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT (2)				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc" (2)				
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TII - 1911	—	—	—	—	1'-6½"	—	—	—	—	2	A242	.75	1'-11½"	—	—	—	—	—	—	4	A242	1	.75	2'-5½"

NO.	DATE	REVISION	BY
(3)	7-3-68	MAIN WEB	T.M.C.
(2)	6-26-68	AS NOTED	T.M.C.
(1)	3-19-68	WEB	J.R.P.

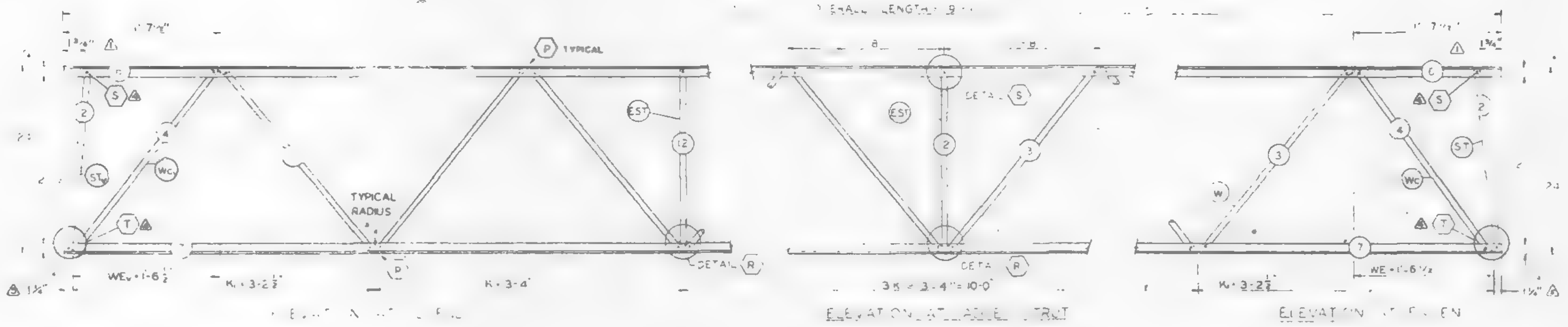
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24TII x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-6
PLATE.
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE
DRAWN BY
DATE FEB 24, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR. DATE
CHECKED BY J.R. PAUL
DATE FEB 24, 1968
IN CHARGE OF PROD.-DEV.
DETAILED BY A C WEBER
FABRICATION CONT. NO W.T.C. 221
SHEET NO. BT211



FABRICATION REQUIREMENTS		
CAMBER AT MIDSPAN	0"	
DESIGN DEPTH	24"	
PANEL	3'-4"	
END "K"	3'-2½"	
WEB DEPTH	23⅞"	
OVERALL LENGTH	19'-11"	



ALL PANEL POINTS RESISTANCE WELDED OR ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICE. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL. LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R29

7 AB4 - 6 8 5-6-
7 AB4 - 38 4-1-68

PAINT
LACLEDE
REF. NO.

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	FILLER	
	MK	TYPE STEEL			MK	TYPE STEEL			MK	TYPE STEEL	DIA	LENGTH		MK	TYPE STEEL	DIA	LENGTH			NO.	DIA
24"A-1911	6	A242	230	19'-11"	7	A242	230	19'-11"	3	A242	.75	25'-7½"	5K 3'-4" = 6'-8"	12	A242	.75	1'-10⅞"	2		—	—

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB Wc				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24"IIA-1911	1'-6½"	2	A242	.75	11⅞"	4	A242	1	.75	2'-5½"

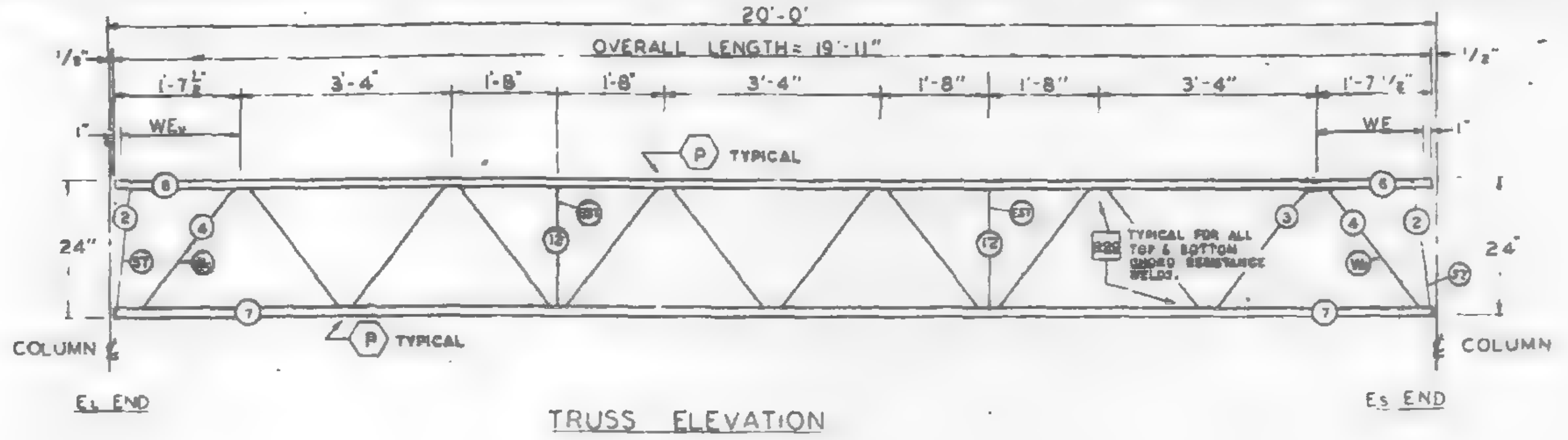
E END	TRUSS DESIGNATION	BEARING ANGLES				WE	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER						WEB "Wc"				
		MK	TYPE STEEL	CHORD	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK #5 TYPE STEEL	DIA	LENGTH	MK #6 TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24"IIA-1911	-	—	—	—	1'-6½"	—	—	—	—	2	A242	.75	1'-11½"	—	—	—	—	—	—	4	A242	1	.75	2'-5½"

NO.	DATE	REVISION	BY
5	7-27-68	END DIST (2)	T.M.C.
4	7-8-68	AS NOTED	T.M.C.
3	7-3-68	MAIN WEB	T.M.C.
2	6-26-68	LENGTH OF "EST" REF. DWG.	T.M.C.
1	4-25-68	END STRUT DIMENSIONS	T.M.C.

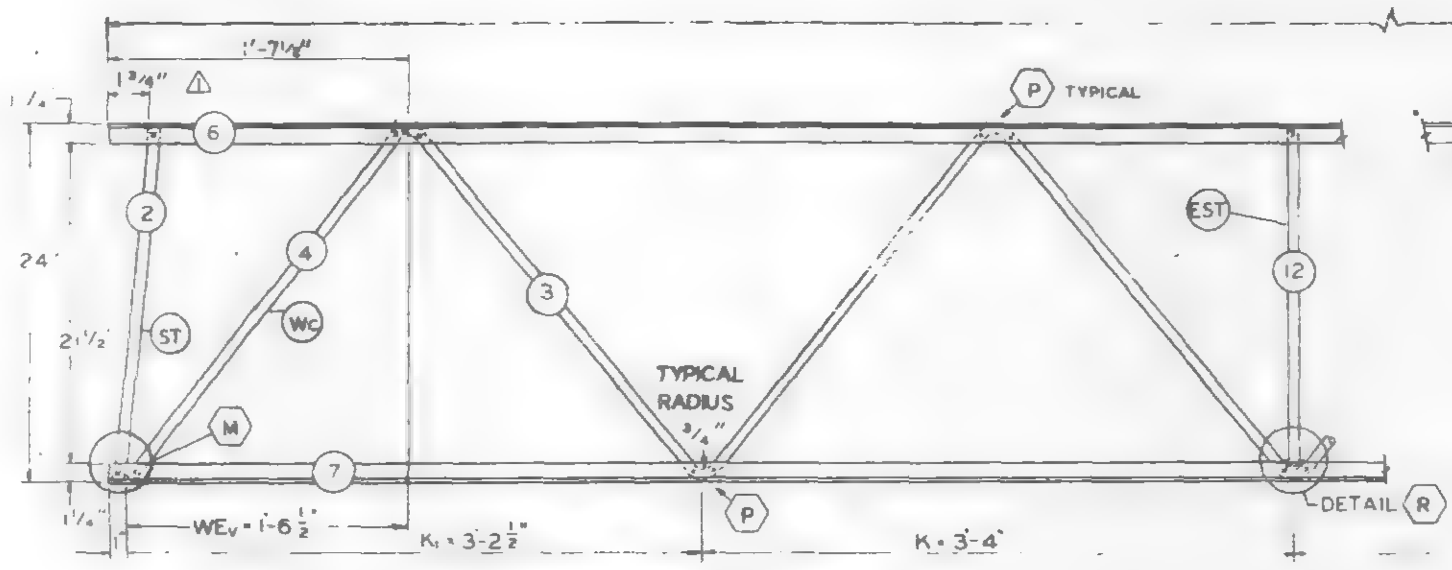
DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24"IIA 19'-11" LONG
WORLD TRADE CENTER TOWERS

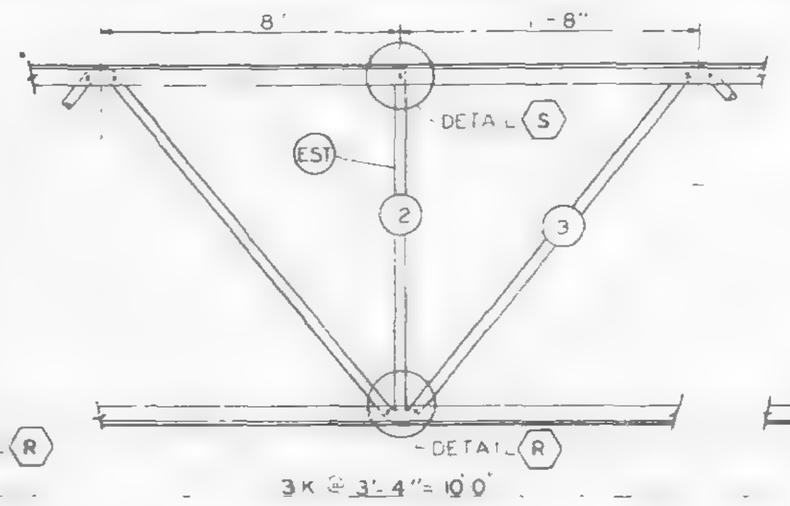
FABRICATED BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DRAWING NO. 7 AB2 6
APPROVED FOR FABRICATION BY [illegible] FOR PONYA — DATE 8/2/68
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR — DATE
DRAWN BY [illegible] DATE FEB 24 1968
CHECKED BY [illegible] DATE FEB 24 1968
DETAILED BY A.C. WEBER
FABRICATION CONTRACT NO. 221
IN CHARGE OF PROD.
SHEET NO. BT21-A



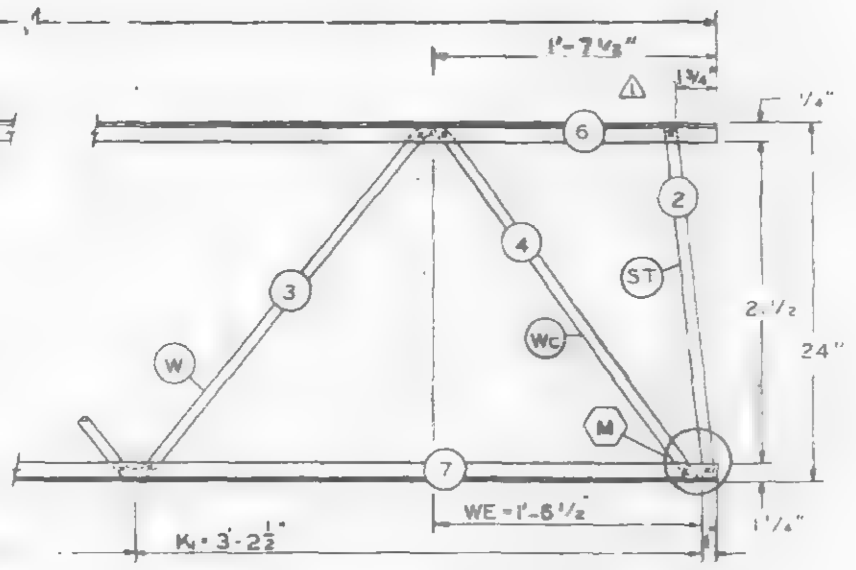
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K1"	3'-2 1/2"	[illegible]
WEB DEPTH	23 1/2"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (※). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291. LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

REF DWG

7-AB2-1	2-15-68
7-AB2-6	2-15-68
7-AB4-15.1	10-27-67
7-AB4-16,18 & 19	1-3-68
7-AB4-28, 38 & 4	1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T11A-1911	6	A242	1 1/2" x 1 1/4" x 230	19'-11"	7	A242	1 1/2" x 1 1/4 x 230"	19'-11"	3	A242	.75	30'-6 1/2"	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 1/8"	2			—	—

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11A-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/8"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11A-1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/8"

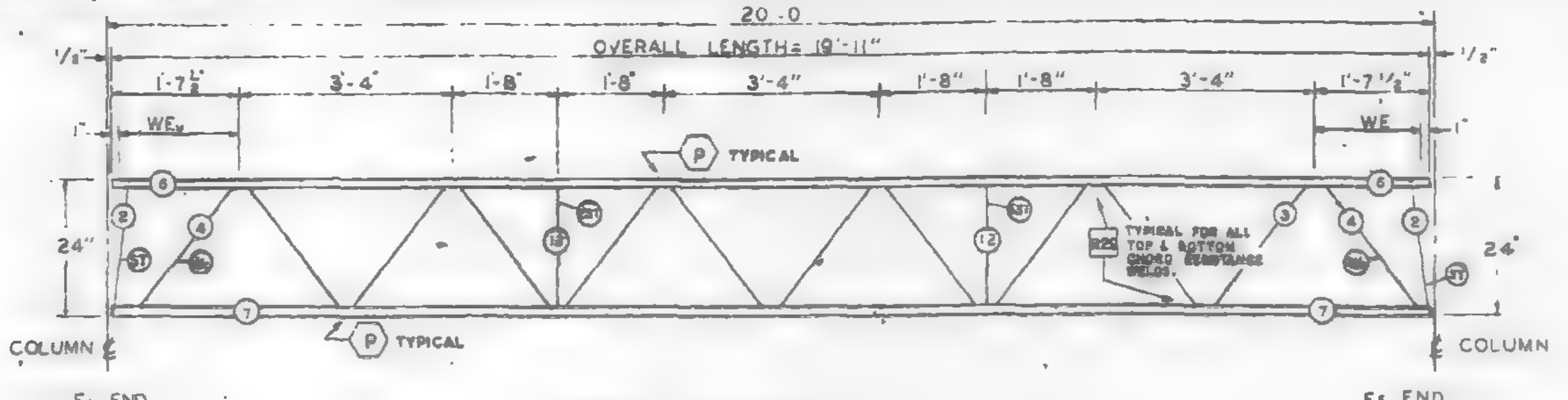
NO.	DATE	REVISION	BY
△	4-25-68	END STRUT DIMENSIONS	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

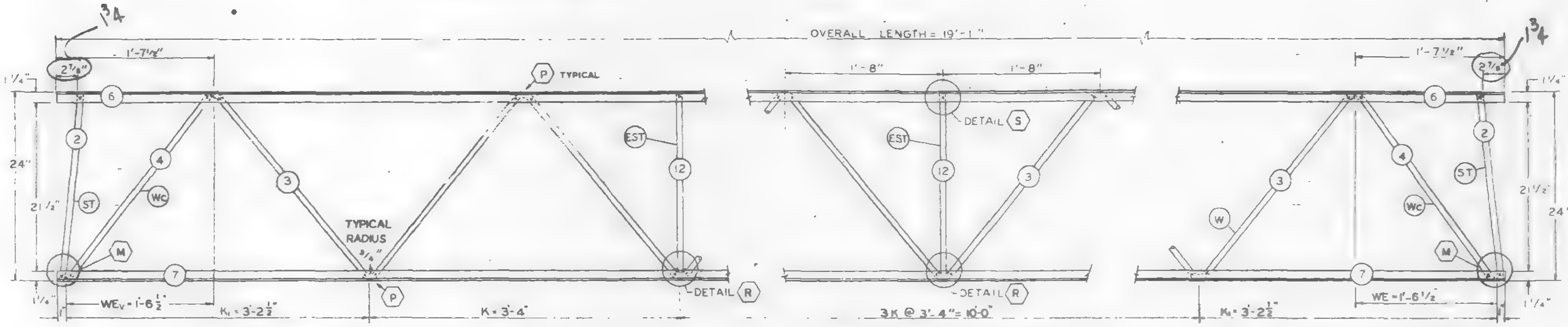
BRIDGING TRUSS 24T11A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 5/1/68	DRAWN BY: [illegible] DATE FEB 26, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE FEB 24, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A. C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. ST211A



TRUSS ELEVATION



ELEVATION AT EL END

ELEVATION AT ADDED STRUT

ELEVATION AT ES END

FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 1/8"
DESIGN DEPTH	24	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH *	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"

ALL PANEL POINTS RESISTANCE WELDED (*).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (...).
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

REF. DWG.	
7-AB2-1	2-15-68
7-AB2-6	2-15-68
7-AB4-15.1	10-27-67
7-AB4-16,18 & 19	1-3-68
7-AB4-28,38 & 41	1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T11A-1911	6	A242	1 1/2"x1 1/4"x.230	19'-11"	7	A242	1 1/2"x1 1/4"x.230	19'-11"	3	A242	.75	30'-6 1/2"	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 1/8"	2			—	—

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11A-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEV	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK VS			END STIFFENER MK VS			WEB "WC"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11A-1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

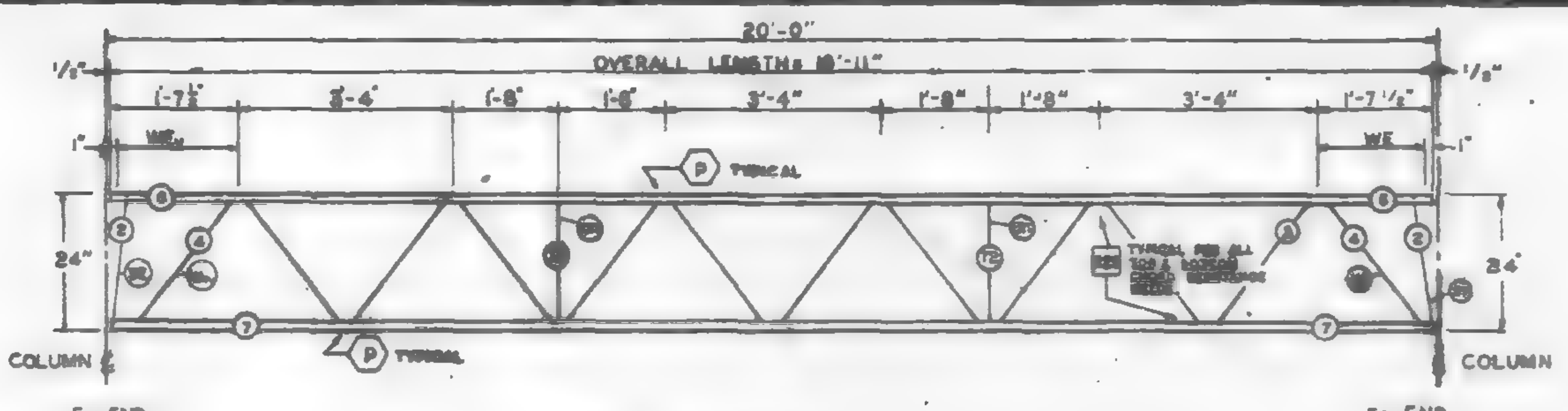
4/24/68 SK

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

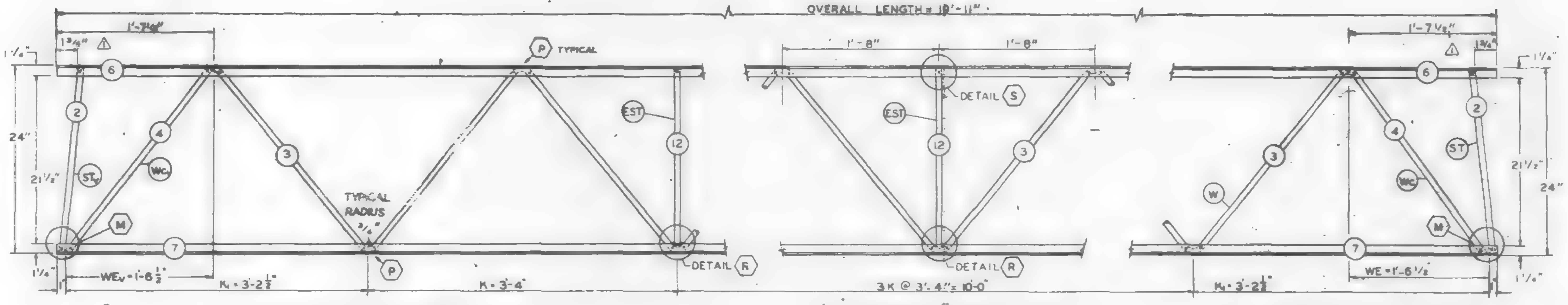
FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY ____ FOR PONKA	DATE	DRAWN BY: L.R. DATE FEB 24, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE FEB 24, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A.C. WEBER		FABRICATION CONT. NO. WTC 221	SHEET NO BT211A



TRUSS ELEVATION

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/8"
PANEL "K1"	3'-2 1/2"	± 1/8"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"



ELEVATION AT EL END — ELEVATION AT ADDED STRUT — ELEVATION AT Es END

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R29.

REF. DWG.
- 7-AB2-1 — 4-1-68 △2
- 7-AB2-5 — 2-13-68
- 7-AB4-15,1,18 — 1-3-68 △2
- 7-AB4-18,18 — 5-8-68 △2
- 7-AB4-28,41 — 1-3-68 △2
- 7-AB4-38 — 4-1-68 △2

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K.	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T11A-1911	6	A242	1 1/8" x 1 1/4" x .230	19'-11"	7	A242	1 1/8" x 1 1/4" x .230	19'-11"	3	A242	.75	25'-7 1/8" △2	5K @ 3'-4" = 16'-8"	12	A242	.75	1'-10 7/8" △2	2			—	—

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS	DIA.	LENGTH
24T11A-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/8"

EL END TRUSS DESIGNATION	BEARING ANGLES				WEL	DIAGONAL "TL" STRUT				INCLINED "STL" STRUT				END STIFFENER MK VS			END STIFFENER MK VS			WEB "WcL"				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS	DIA.	LENGTH
24T11A-1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/8"

NO.	DATE	REVISION	
△2	7-5-68	MAIN WEB	T.M.C.
△2	6-26-68	LENGTH OF "EST", REF. DWG.	T.M.C.
△1	4-25-68	END STRUT DIMENSIONS	

VOID

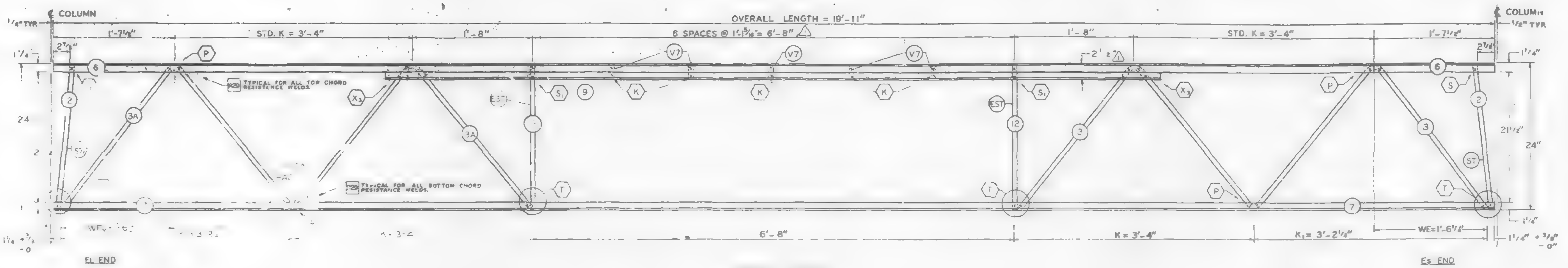
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-6	PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE	DRAWN BY: J.L.E. DATE FEB 24, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE FEB 24, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY [illegible]		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. ST211A

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K1"	3'-2½"	[illegible]
WEB DEPTH	23¼"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]



TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, AND ST 292.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (P).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R29.

REF. DWG.	
7-AB2-1	10-4-68
7-AB2-15	10-4-68
7-AB4-15.1	10-4-68
7-AB4-15.3	7-22-68
7-AB4-28 & 41	7-22-68
7-AB4-18 & 19	10-15-68

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					[illegible]	BEARING ANGLES				SPECIAL FILLER △				
	MK	TYPE	[illegible]	[illegible]	MK	[illegible]	[illegible]	LENGTH	MK	TYPE STEEL	[illegible]	[illegible]	[illegible]	MK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.	PCS.	LENGTH
24T11B-1911	6	A242	[illegible] x .230	19'-11"	7	A242	1" x 1" x .230	19'-11"	3 3A	A242 A242	.75 .75	10'-1½" 10'-1½"	2K @ 3'-4" = 6'-8" 2K @ 3'-4" = 6'-8"	12	A242	.75	1'-11⅞"	2	—	9	A242	1½" x 1⅛" x .23"	10'-10"	V7	A242	.75	5	2⅜"

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	[illegible]	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11B-1911	1'-6¼"	2	A242	.75	1'-11⅞"	—	—	—	—	—

EL END	TRUSS DESIGNATION	BEARING ANGLES				WE1	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WC"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11B-1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.75	1'-11¼"	—	—	—	—	—	—	—	—	—	—	—

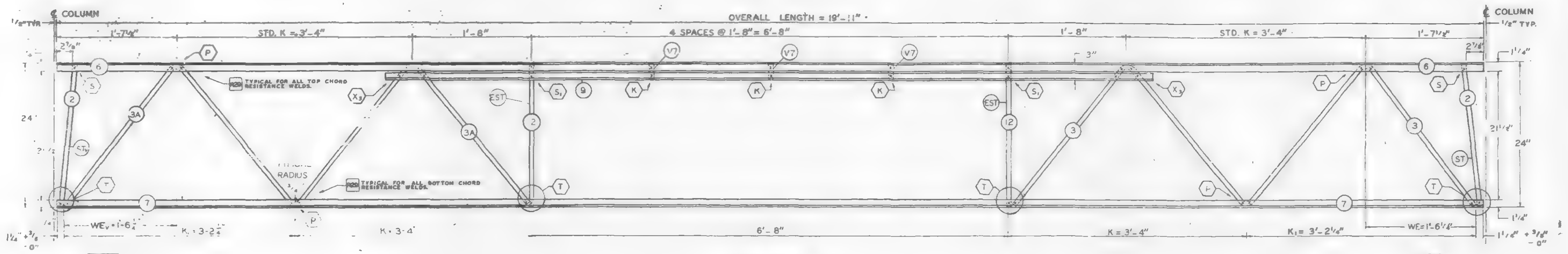
NO	DATE	REVISION	BY
△	11-12-68	SPECIAL FILLER	LWH

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11B x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-15 PLATE
APPROVED FOR FABRICATION BY [signature] FOR PONYA DATE 11/18/68
DRAWN BY [initials] DATE OCT. 29, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY T M CHURA DATE OCT 29, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT 211 B

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	± 1/4
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 1/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"



TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, AND ST 292.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (P).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R29].

REF DWG	DATE
7-AB2-1	10-4-68
7-AB2-15	10-4-68
7-AB4-15.1	10-4-68
7-AB4-16.8	7-22-68
7-AB4-20 & 41	7-22-68
7-AB4-38 & 10	10-15-68

PAINT
LACLEDE [illegible] ROCOAT
RED NO [illegible]

SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
X
11/7/68 SK

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER		BEARING ANGLES				SPECIAL FILLER				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.	PCS.	LENGTH
24T118-1911	6	A242	1 1/4" x 1 1/4" x .230"	19'-11"	7	A242	1 1/4" x 1 1/4" x .230"	19'-11"	3	A242	.75	10'-1 1/2"	2K@3'-4"=6'-8"	12	A242	.75	1'-11 7/8"	2			–	—	9	A242	1 1/2" x 1 1/4" x .23"	10'-10"	V7	A242	.75	3 (10)	2 7/8"
									3A	A242	.75	10'-1 1/2"	2K@3'-4"=6'-8"																		

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T118-1911	1'-6 1/4"	2	A242	.75	1'-11 3/4"	—	—	—	—	—

Ec END	TRUSS DESIGNATION	BEARING ANGLES				WEr	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER						WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK VS TYPE STEEL	DIA.	LENGTH	MK VS TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T118-1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.75	1'-11 3/4"	—	—	—	—	—	—	—	—	—	—	—

NO	DATE	REVISION	BY

BRIDGING TRUSS DETAILS

WORLD TRADE CENTER - N.Y.C.

THE PORT OF NEW YORK AUTHORITY

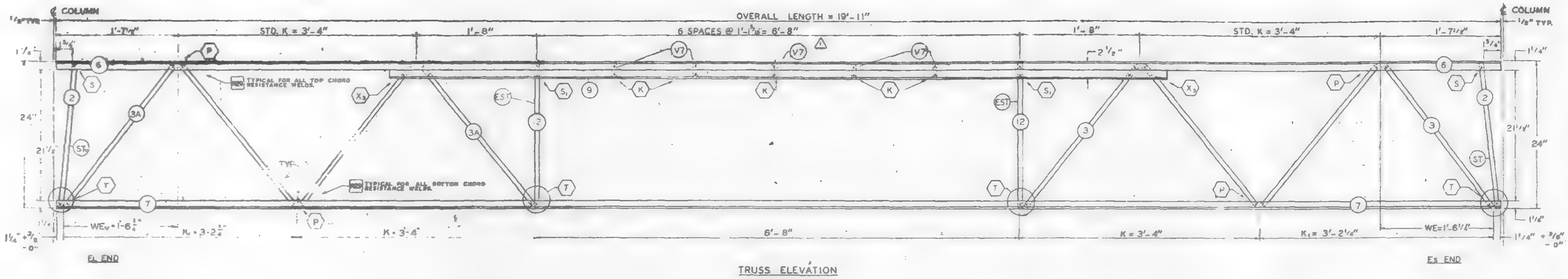
BRIDGING TRUSS 24T11B x 19'-11" LONG

WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-15	PLATE
APPROVED FOR FABRICATION BY FOR PONYA	DATE	DRAWN BY [illegible] DATE OCT. 29, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T. M. CHUBA DATE OCT. 29, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY [illegible] CO.		FABRICATION CONT. NO. 221	SHEET NO. BT 211 B

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 1/8
DESIGN DEPTH	24	± 1/8"
PANEL "K"	3'-4"	± 1/8"
PANEL "K1"	3-2 1/2	± 1/8"
WEB DEPTH	23 1/8"	± 1/4
OVERALL LENGTH	19'-11"	± 1/8



TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, AND ST 292.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (P).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R29].

REF DWG	
7-AB2-[illegible]	10-4-68
7-AB2-15	10-4-68
7-AB4-15.1	10-4-68
7-AB4-16 18	7-22-68
7-AB4-28 & 41	7-22-68
7-AB4-18 & 19	10-15-68

PAINT
LACLEDE ELECTROCOAT
[illegible]

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	FILLER		BEARING ANGLES				SPECIAL FILLER ⚠1				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		NO.	DIA	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
24TIIC-1911	6	A242	1 1/2"x1 1/2"x.230	19'-11"	7	A242	1 1/2"x1 1/2"x.230	19'-11"	3	A242	.75	10'-1 1/2"	2K@3'-4"=6'-8"	12	A242	.75	1'-11 7/8"	2		—	—	9	A242	1 1/2"x1 1/2"x.23"	10'-10"	V7	A242	.75	3	2 3/8"
									3A	A242	.75	10'-1 1/4"	2K@3'-4"=6'-8"																	

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TIIC-1911	1'-6 1/4"	2	A242	.75	1'-11 7/8"	—	—	—	—	—

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "ST" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24TIIC-1911	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 [illegible]	—	—	—	—	—	—	—	—	—	—	—

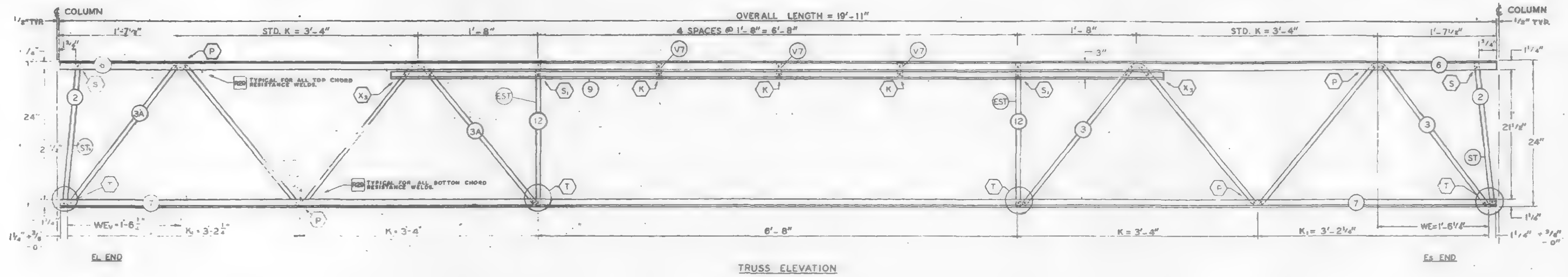
NO	DATE	REVISION	BY
⚠1	11-12-68	SPECIAL FILLERS	LWH

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24TIIC x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-15
PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White DATE 11/18/68
DRAWN BY [illegible] DATE OCT. 20, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHURE DATE OCT 20, 1968
IN CHARGE OF PROD. DIV.
DETAILED BY LACLEDE STEEL CO.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT 2H C3

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	± 1/4
[illegible] K	3'-4"	± 1/4
[illegible] K	3'-2 1/2"	± 1/4
WEB DEPTH	23 [illegible]	± 1/4
OVERALL LENGTH	19'-11"	± 1/8



TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, AND ST 292.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (P).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R29.

REF DWG	
7-AB2 [illegible]	10-4-68
7-AB2 15	10-4-68
7-AB4-15	10-4-68
7-AB4 [illegible]	7-22-68
7-AB4-[illegible] & 41	7-22-68
7 AB4-[illegible] & 19	10-15-68

SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
Date 11/7/68 SK

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K
24T11C-1911	6	A242	1 1/2" x 1 1/4" x .230	19'-11"	7	A242	1 1/2" x 1 1/4" x .230	19'-11"	3 / 3A	A242 / A242	.75 / .75	10'-1 1/2" / 10'-1 1/2"	2K@3'-4"=6'-8" / 2K@3'-4"=6'-8"

TRUSS DESIGNATION	VERTICAL "EST" STRUT					TRUSS DATA		FILLER		BEARING ANGLES				SPECIAL FILLER				
	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
24T11C-1911	12	A242	.75	1'-11 7/8"	2			—	—	9	A242	1 1/2" x 1 1/4" x .23"	10'-10"	V7	A242	.75	3 (10)	2 7/8"

E_S END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11C-1911	1'-6 1/4"	2	A242	.75	1'-11 3/4"	—	—	—	—	—

E_L END	TRUSS DESIGNATION	BEARING ANGLES				WE_L	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "WC"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T11C-1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.75	[illegible]	—	—	—	—	—	—	—	—	—	—	—

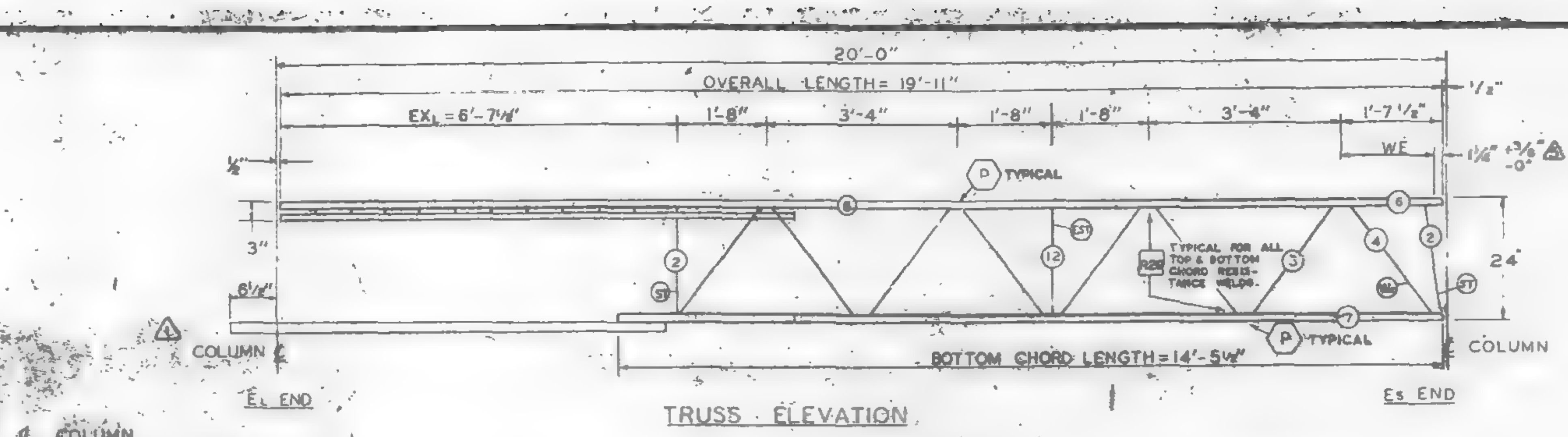
NO	DATE	REVISION	BY

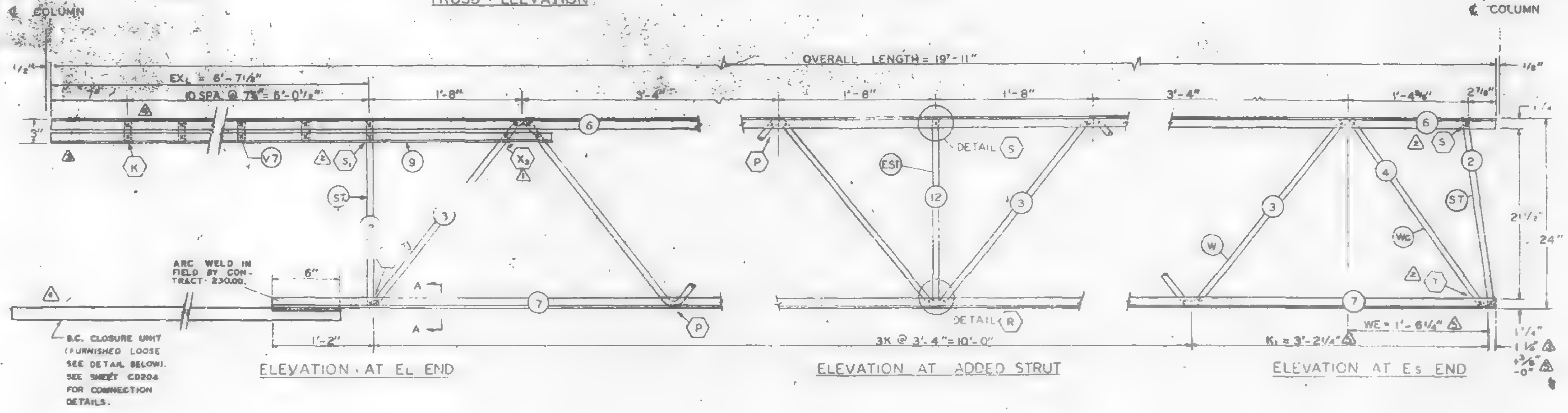
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T11C x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-15	PLATE
APPROVED FOR FABRICATION BY ______ FOR PONYA	DATE	DRAWN BY [illegible] DATE OCT. 20, 1968	
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR	DATE	CHECKED BY T. M. CHURA DATE OCT. 29, 1968	IN CHARGE OF PROD. - DEV.
LACLEDE STEEL CO. DETAILED BY A. C. WEBER		FABRICATION CONT. NO. WTC 221	SHEET NO. BT 211-C

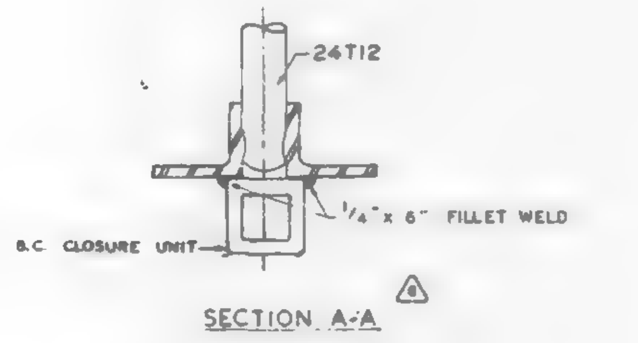


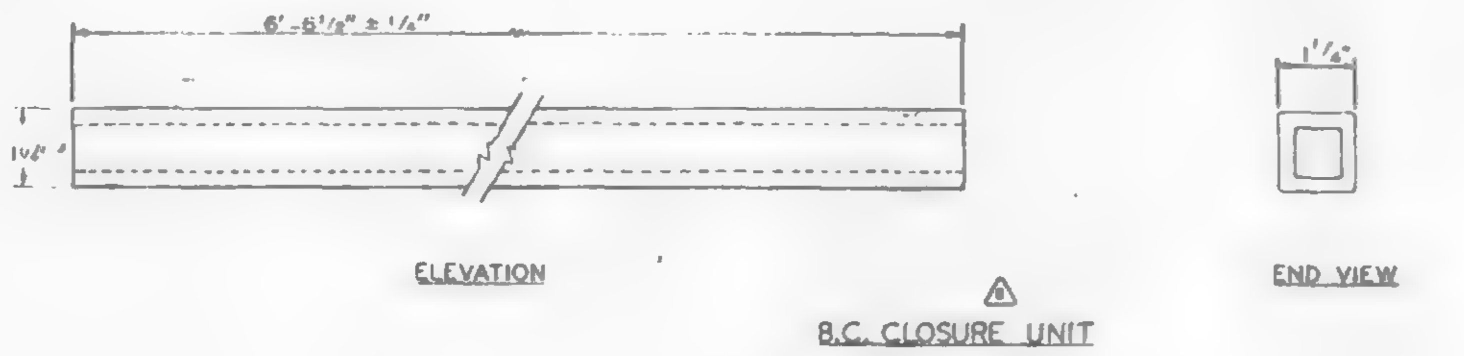


ALL PANEL POINTS RESISTANCE WELDED (x).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE UNIT DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R29].

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K1"	3'-2¼"	[illegible]
WEB DEPTH	23⅞"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]





REF. DWG. 7-AB2-1 4-3-68
7-AB2-7
7-AB4-15.1
7-AB4-18 A ...
7-AB4-10,20 & 41 1-3-68
7-AB4-28 4-1-68

MATERIAL LIST FOR B.C. CLOSURE UNIT			
PCS.	TYPE STEEL	SIZE	LENGTH
1	A242	1¼" x .187 WALL SQ TUBING	6'-6½"

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO OF K.	MK.	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T12-1911	6	A242	1½"x1¼"x.230	19'-11"	7	A242	1½"x1¼"x.230	14'-5¼"	3	A242	.75	17'-11¼"	3½K @ 3'-4" = 11'-8"	12	A242	.75	1'-10⅞"	1		

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
		△	MK.	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
	24T12-1911	1'-6¼"	2	A242	.75	1'-11¾"	4	A242	.75	1	2'-5½"

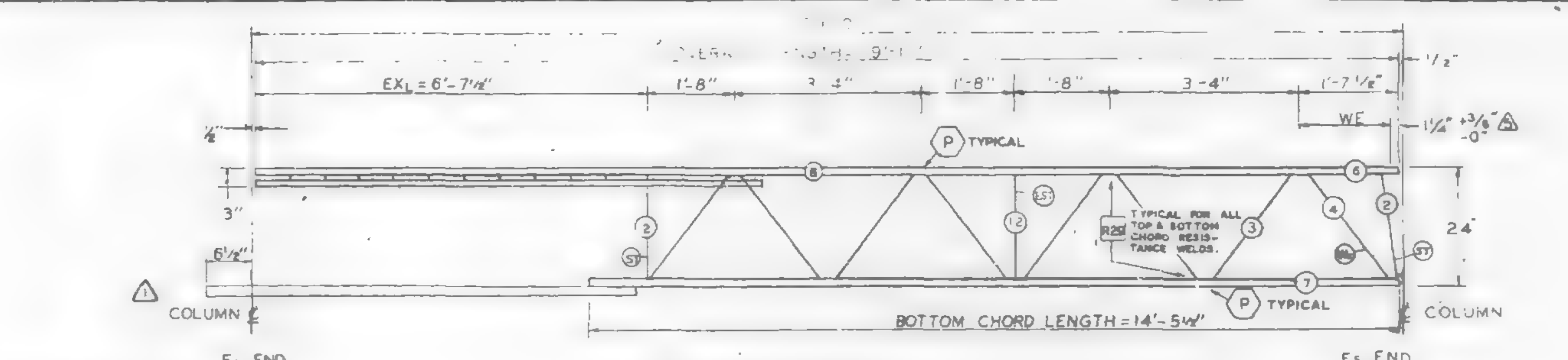
EL END	TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST1" STRUT				END STIFFENER MK V7			
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T12-1911	9	A242	1¼"x1¼"x.230	8'-8"	6'-7¼"	—	—	—	—	2	A242	.75	1'-11¾"	A242	.75	2⅞"	10

NO.	DATE	REVISION	BY
7	12-4-68	CLOSURE UNIT	G.D.C.
6	11-13-68	CLOSURE UNIT	L.W.H.
5	9-9-68	END DIST (2)	
4	8-3-68	EL END	G.D.C.
3	7-27-68	ES & EL END	T.M.C.
2	7-8-68	AS NOTED	T.M.C.
1	6-26-68	FILLER SIZE, BOTTOM CHORD LENGTH	T.M.C.

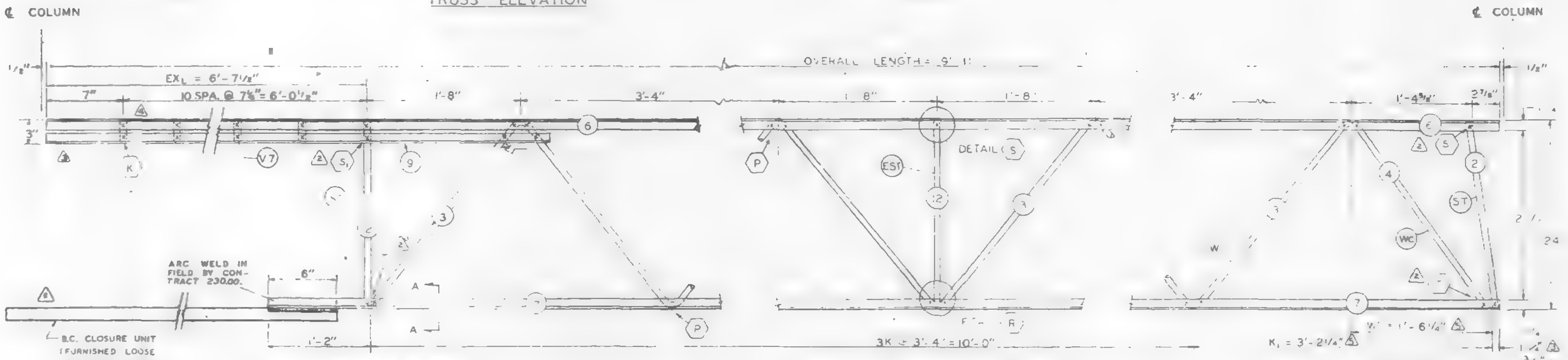
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-2 PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE 12/11/68
DRAWN BY: [illegible] DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: [illegible] DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. [illegible]
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT212



TRUSS ELEVATION

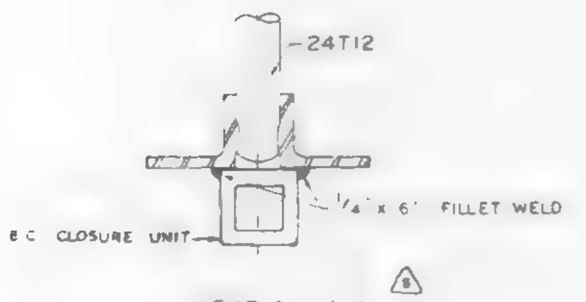


ELEVATION AT EL END — ELEVATION AT ADDED STRUT — ELEVATION AT ES END

	DESIGN	TOLERANCE
FABRICATION REQUIRMENTS		
CAMBER AT MIDSPAN	0"	+ ⅛"
DESIGN DEPTH	24"	± ¼"
PANEL "K"	3'-4"	± ¼"
PANEL "K1"	3'-2½"	± 1/4"
WEB DEPTH	23⅞"	± ¼"
OVERALL LENGTH	19'-11"	± ⅜"

ALL PANEL POINTS RESISTANCE WELDED (x).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ( ).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE UNIT DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R29.



SECTION A-A

ELEVATION — END VIEW

B.C. CLOSURE UNIT

REF. DWG.

7-AB2-1	4-1-68
7-AB2-7	2-15-68
7-AB4-15.1	1-3-68
7-AB4-16 & 18	3-8-68
7-AB4-19, 28 & 41	1-3-68
7-AB4-38	4-1-68

MATERIAL LIST FOR B.C. CLOSURE UNIT

PCS.	SIZE	LENGTH	Type St
(2) 1	1¼" x .187 WALL SQ TUBING	6'-6½"	A242

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T12-1911	6	A242	1½"x1¼"x.23[illegible]	[illegible]11"	7	A242	1½"x1¼"x.230	14'-5½"	3	A242	.75	17'-11¼"	3½K @ 3'-4" = 11'-8"	12	A242	.75	1'-10⅞"	1		

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
		(5)	MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	PCS.	LENGTH
	24T12-1911	1'-6¼"	2	A242	.75	1'-11¾"	4	A242	.75	1	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST1" STRUT				END STIFFENER MK V7			
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T12-1911	9	A242	1¼"x1¼"x.230	8'-8"	6'-7½"	—	—	—	—	2	A242	.75	1'-11¾"	A242	.75	2⅞"	10

SKILLING · HELLE · CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
APPROVED
APPROVED AS NOTED
12/3/68 SK

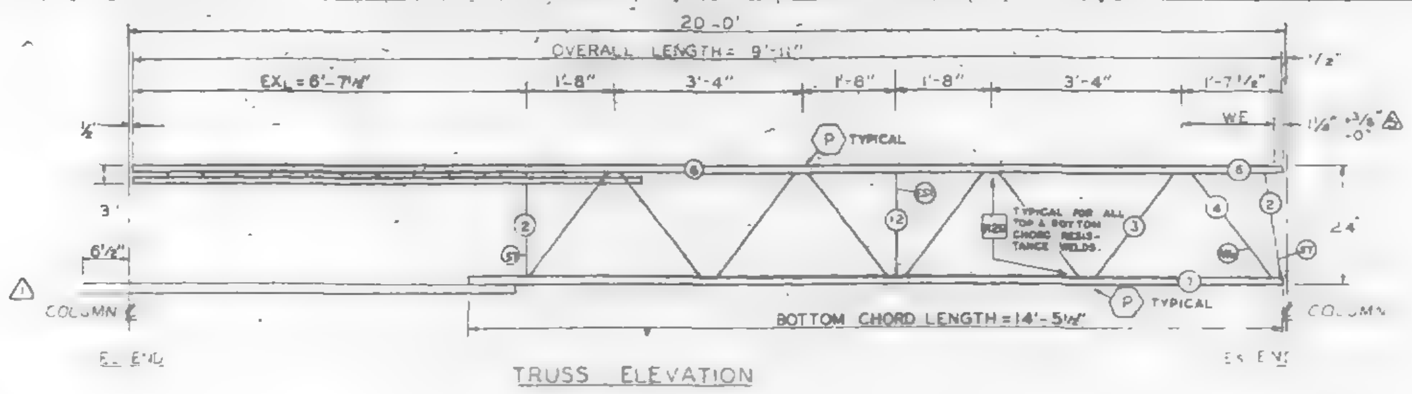
NO	DATE	REVISION	BY
6	11-13-68	CLOSURE UNIT	L.W.H.
5	9-9-68	END DIST (2)	T.M.C.
4	8-3-68	EL END	G.D.C.
3	7-27-68	ES & EL END	T.M.C.
2	7-8-68	AS NOTED	T.M.C.
1	6-28-68	FILLER SIZE, BOTTOM CHORD LENGTH	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
THE PORT OF NEW YORK AUTHORITY

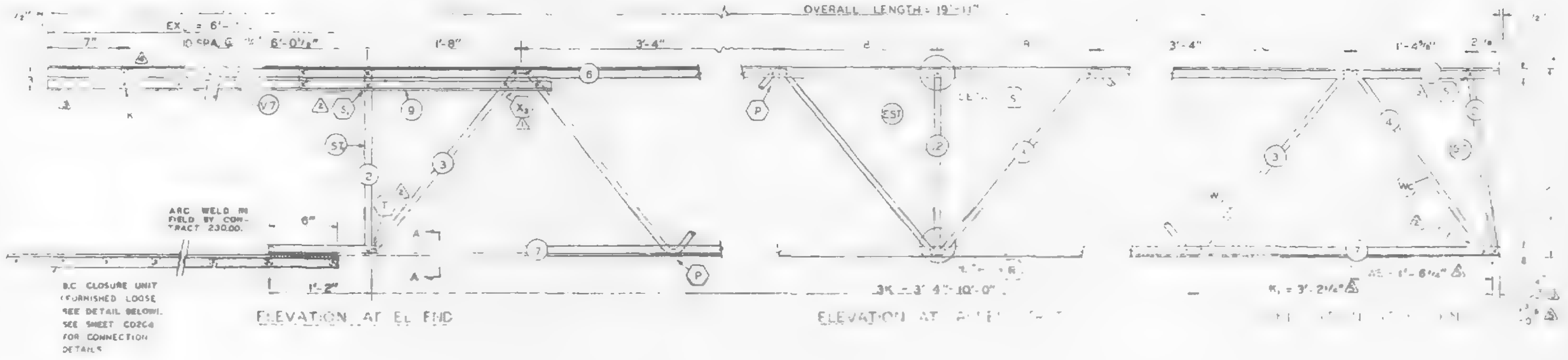
BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

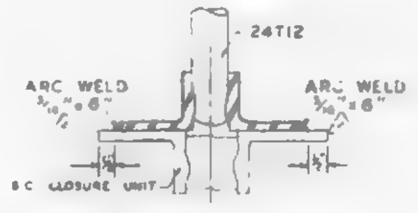
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-7	PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A.	DATE	DRAWN BY: [illegible] DATE FEB. 24, 1968	
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE 2.24.1968	IN CHARGE OF PROD. DEV.
DETAILED BY A. C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. ST212



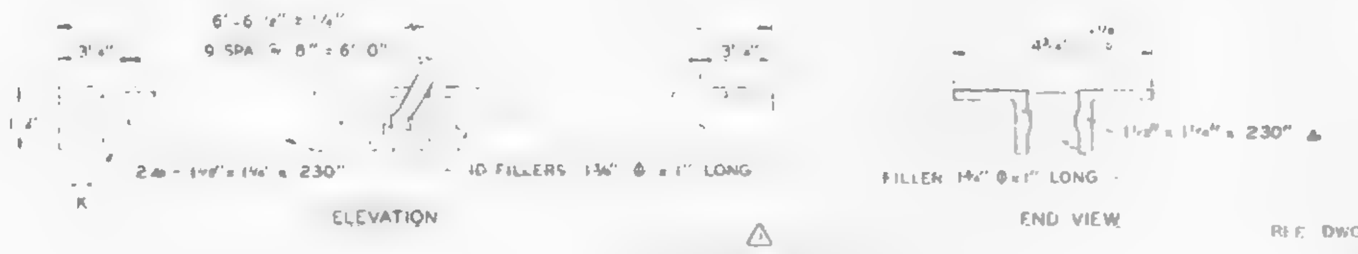
TRUSS ELEVATION



ELEVATION AT EL END



SECTION A-A



B.C. CLOSURE UNIT

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	+ 1/8"

ALL PANEL POINTS RESISTANCE WELDED [illegible] INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES [illegible]

ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292

SEE SHEET LD204 FOR B.C. CLOSURE CONNECTION DETAIL.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).

LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

REF. DWG.
7-AB4-16 & 18 — 8-8-68
7-AB4-18.20 & 41 — 1-3-68
7-AB4-30 — 4-1-68

MATERIAL LIST FOR B.C. CLOSURE UNIT		
PCS.	SIZE	LENGTH
2	1 1/2" x 1 1/4" x 23" ∠	6' 6"
10	1 3/4" Ø FILLERS	1"

TRUSS DESIGNATION	TOP CHORD TWO ANGLES MK	TYPE STEEL	CHORD SIZE	LENGTH	BOTTOM CHORD TWO ANGLES MK	TYPE STEEL	CHORD SIZE	LENGTH	MAIN WEB "W" MK	TYPE STEEL	DIA	LENGTH	NO OF K	VERTICAL "EST" STRUT MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED	TRUSS DATA
24T12-1911	6	A242	1 1/2" x 1 1/4" x .230"	19'-11"	7	A242	1 1/2" x 1" x .230"	14'-5 1/2"	3	A242	.75	17'-11 1/2"	3 1/2 K @ 3'-4" = 11'-8"	12	A242	.75	1'-10 7/8"	1	

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT MK	TYPE STEEL	DIA	LENGTH	WEB "WC" MK	TYPE STEEL	DIA	PCS	LENGTH
24T12-1911	1'-6 1/4"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 1/2"

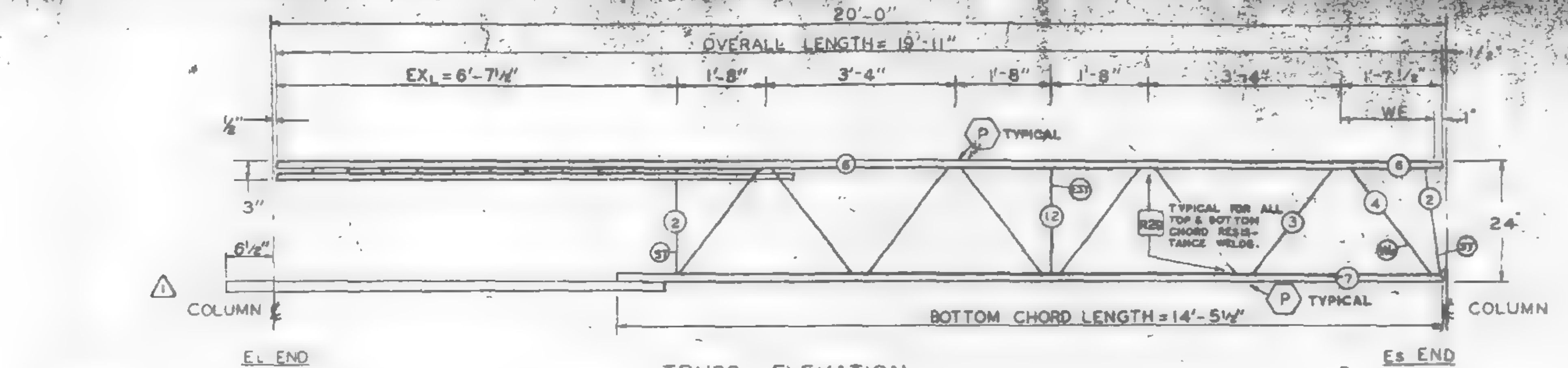
EL END TRUSS DESIGNATION	BEARING ANGLES MK	TYPE STEEL	CHORD SIZE	LENGTH	EX_L	DIAGONAL "T" STRUT MK	TYPE STEEL	DIA	LENGTH	VERTICAL "ST" STRUT MK	TYPE STEEL	DIA	LENGTH	END STIFFENER MK V7 TYPE STEEL	DIA	LENGTH	NO REQ'D
24T12-1911	9	A242	1 1/2" x 1 1/4" x .230"	8'-8"	6'-7 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	A242	.75	2 7/8"	10

NO.	DATE	REVISION	BY
5	9-9-68	END DIST (2)	T.M.C.
4	8-3-68	EL END	G.D.C.
3	7-27-68	Es & EL END	T.M.C.
2	7-8-68	AS NOTED	T.M.C.
1	6-28-68	FILLER SIZE, BOTTOM CHORD LENGTH	T.M.C.

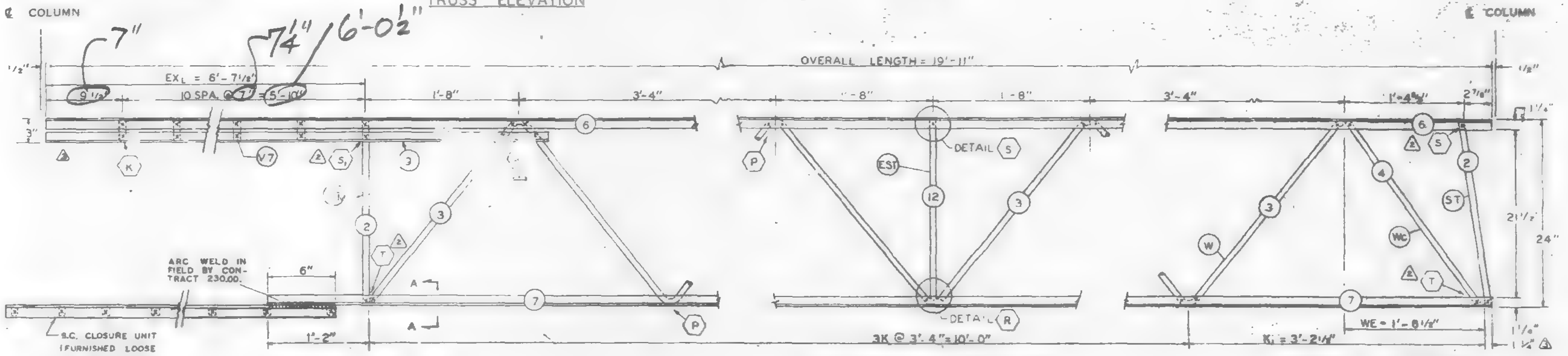
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-7 PLATE
APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. DATE 9/10/68
DRAWN BY [illegible] DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A. C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT212



TRUSS ELEVATION



ELEVATION AT EL END

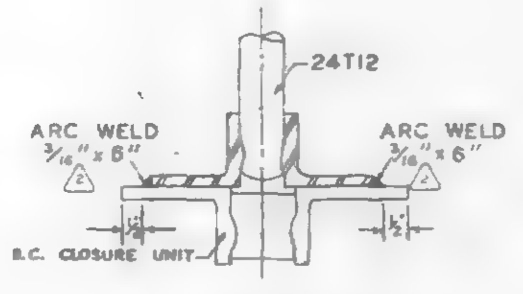
ELEVATION AT ADDED STRUT

ELEVATION AT Es END

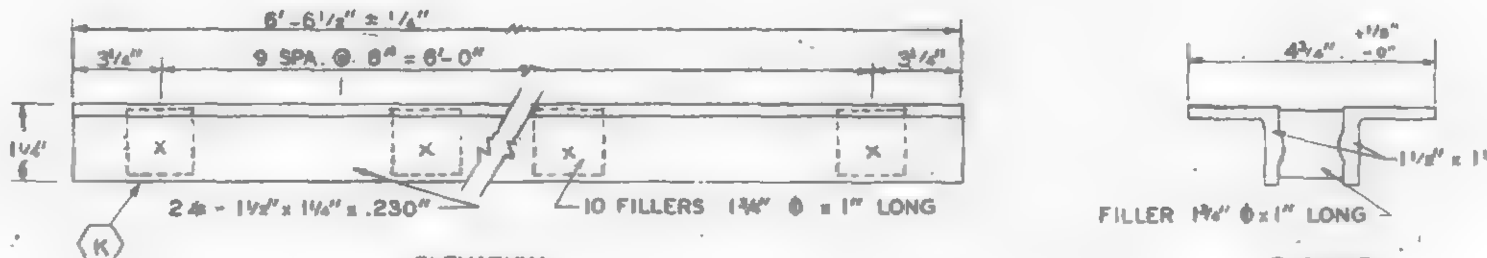
ALL PANEL POINTS RESISTANCE WELDED (✱)
ALL WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R29].

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"



SECTION A-A



ELEVATION

END VIEW

B.C. CLOSURE UNIT

REF. DWG. 7-AB2-1 — 4-1-68
7-AB2-7 — 2-15-68
7-AB4-15.1 — 1-3-68
7-AB4-16 & 18 — 5-8-68
7-AB4 19, 20 & 41 — 3-68
7-AB4-38 — 4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

MATERIAL LIST FOR B.C. CLOSURE UNIT		
PCS.	SIZE	LENGTH
2	1 1/2" x 1 1/4" x .23"	6'-6 1/2"
10	1 3/4" ϕ FILLERS	1"

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T12-1911	6	A242	1 1/2" x 1 1/4" x .230"	19'-11"	7	A242	1 1/2" x 1 1/4" x .230"	14'-5 1/2"	3	A242	.75	17'-11 1/4"	3 1/2 K @ 3'-4" = 11'-8"	12	A242	.75	1'-10 7/8"	1		

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
	24T12-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				EX_L	DIAGONAL "T" STRUT				VERTICAL "ST_L" STRUT				END STIFFENER MK V7			
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T12-1911	9	A242	1 1/2" x 1 1/4" x .230"	8'-8"	6'-7 1/8"	—	—	—	—	2	A242	.75	1'-11 3/4"	A242	.75	2 7/8"	10

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
APPROVED
APPROVED AS NOTED
RESUBMIT
REJECTED
Date 8/24/68 SK

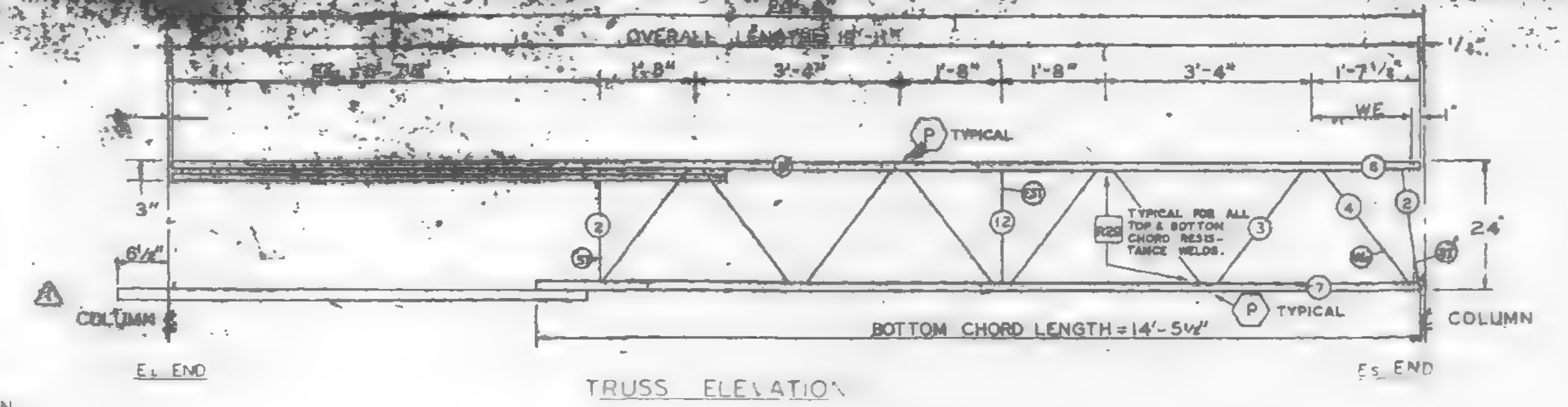
NO.	DATE	REVISION	BY
3	7-2-68	Es & EL END	T.M.C.
2	7-8-68	AS NOTED	T.M.C.
1	6-28-68	FILLER SIZE, BOTTOM CHORD LENGTH	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

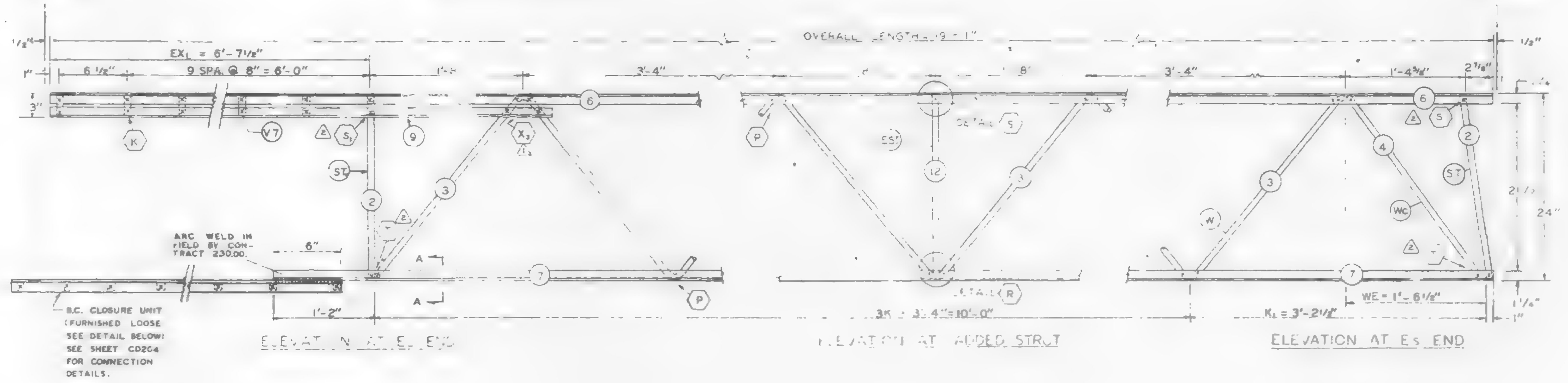
FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT. MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-7	PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A	DATE	DRAWN BY: L.A. DATE: FEB. 24, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE: FEB. 24, 1968	IN CHARGE OF PROD DEV
DETAILED BY: LACLEDE STEEL CO.		FABRICATION CONT NO. W.T.C. 221	SHEET NO BT212



TRUSS ELEVATION

FABRICATION REQUIREMENTS		
CAMBER AT MIDSPAN	[illegible]	[illegible]
DESIGN DEPTH	[illegible]	[illegible]
PANEL "P"	[illegible]	[illegible]
PANEL "S"	[illegible]	[illegible]
WEB DEPTH	[illegible]	[illegible]
OVERALL LENGTH	[illegible]	[illegible]



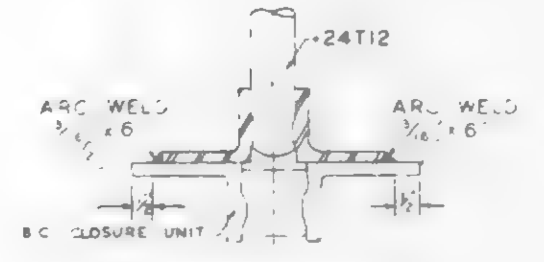
ELEVATION AT EL END

ELEVATION AT ADDED STRUT

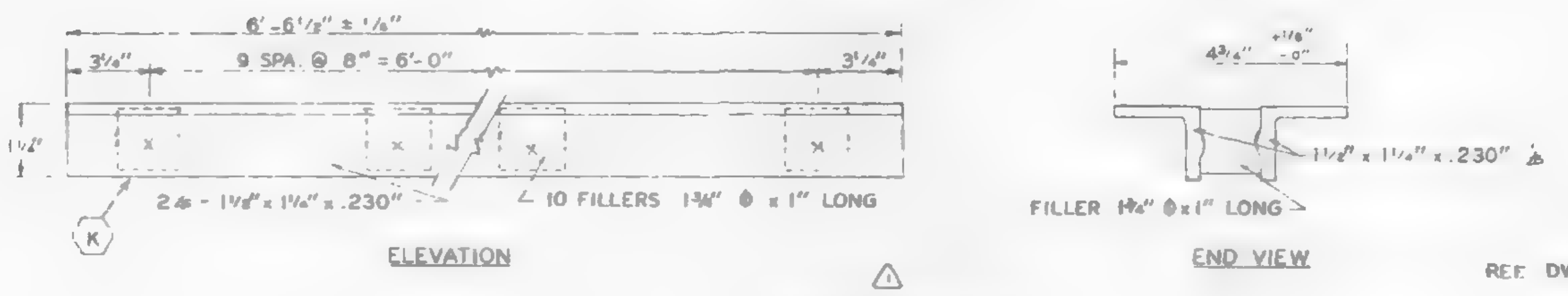
ELEVATION AT ES END

ALL PANEL POINTS RESISTANCE WELDED (X).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.



SECTION A-A



ELEVATION

END VIEW

B.C. CLOSURE UNIT

REF DWG
7-AB2-1 4-1-68
7-AB2-7 2-15-68
7-AB4-15.1 1-3-68
7-AB4-16 & 18 6-6-67
7-AB4-10, 28 & 41 1-3-68
7-AB4-38 4-1-68

MATERIAL LIST FOR B.C. CLOSURE UNIT		
PCS.	SIZE	LENGTH
2	1 1/2"x1 1/4"x .230" ∠s	6'-6 1/2"
10	1 3/4" ϕ FILLERS	1"

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "FST" STRUT					TRUSS DATA
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF P	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED	
[illegible] 1911	6	A242	1 1/2"x1 1/4"x .230"	19'-11"	7	A242	1 1/2"x1 1/4"x .230"	14'-5 1/2"	3	A242	.75	17'-11 1/8"	3 1/2 K @ 3'-4" = 11'-8"	2	A242	.75	1'-10 7/8"		

ES END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	PCS.	LENGTH
24T12-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 1/2"

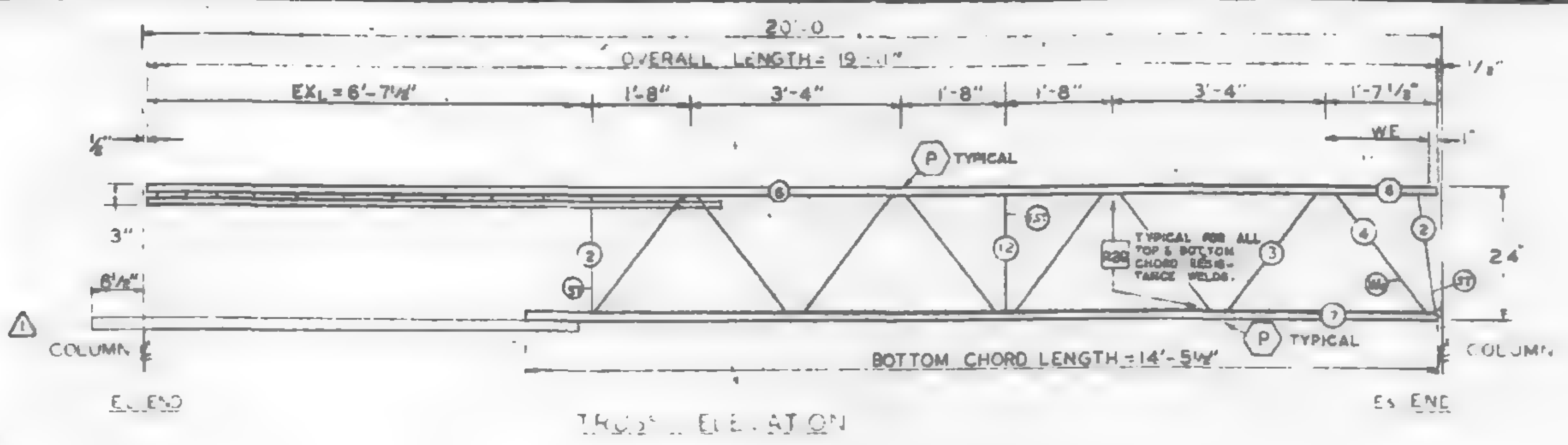
EL END TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK V7			
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
24T12-1911	9	A242	1 1/2"x1 1/4"x .230	8'-8"	6'-7 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	A242	.75	2 7/8"	10

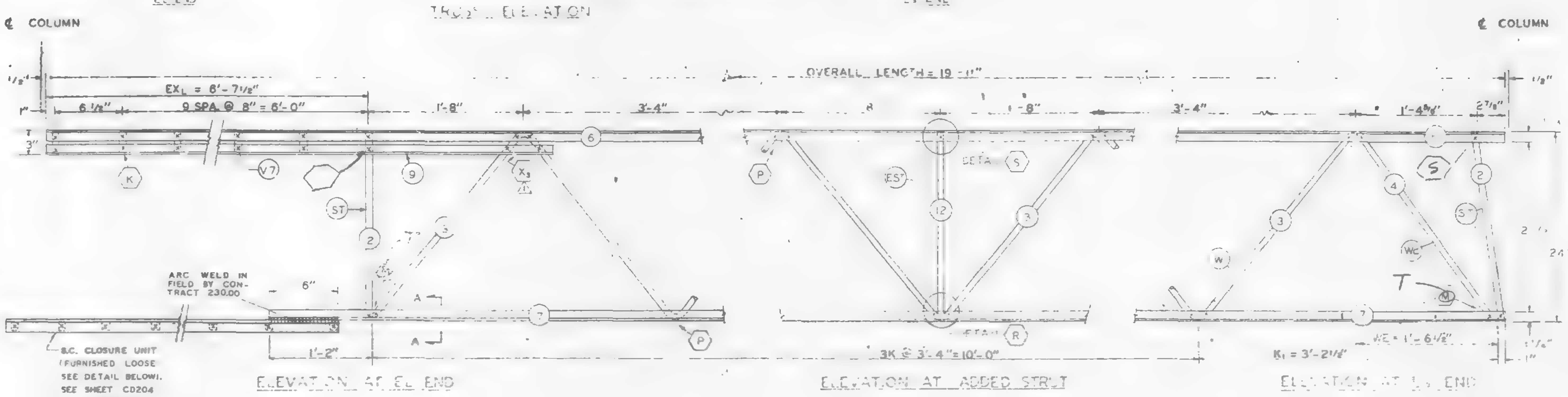
NO.	DATE	REVISION	BY
2	7-8-68	AS NOTED	T.M.C.
1	6-26-68	FILLER SIZE, BOTTOM CHORD LENGTH	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-7 PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 7/9/68
DRAWN BY [illegible] DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT NO WTC 221
SHEET NO ST212

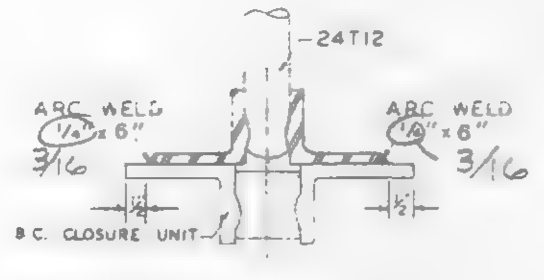




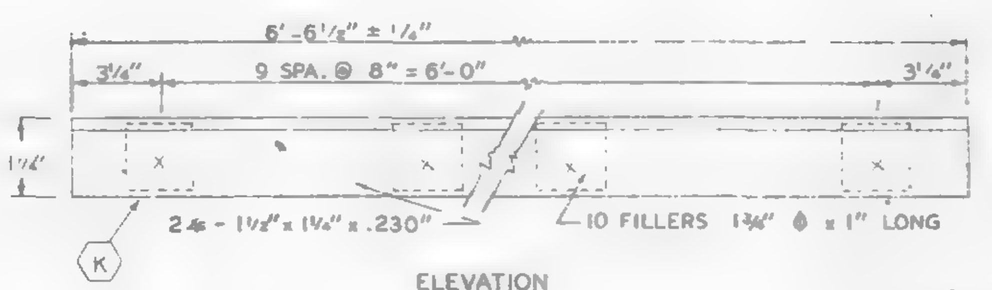
ALL PANEL POINTS RESISTANCE WELDED (X)
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD-DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R29

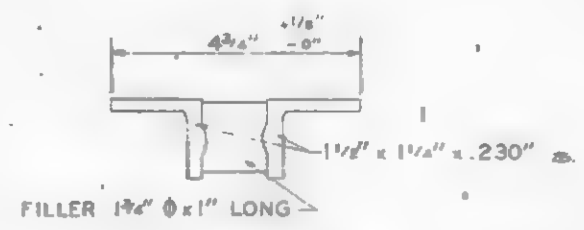
FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 1/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/8"
PANEL "K1"	3'-2 1/8"	± 1/4"
WEB DEPTH	23 1/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 1/8"



SECTION A-A



ELEVATION



END VIEW

B.C. CLOSURE UNIT

REF DWG	
7-AB2-1	4-1-68
7-AB2-7	2-15-68
7-AB4-15,1	1-3-68
7-AB4-10 & 18	5-8-63
7-AB4-10,28 & 41	1-3-68
7-AB4-38	4-1-68

MATERIAL LIST FOR B.C. CLOSURE UNIT		
PCS.	SIZE	LENGTH
2	1 1/2" x 1 1/4" x .23" ∠	6'-6 1/2"
10	1 3/8" ϕ FILLERS	1"

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T12-1911	6	A242	1 1/2" x 1 1/4" x .230"	19'-11"	7	A242	1 1/2" x 1 1/4" x .230"	14'-5 1/2"	3	A242	.75	17'-11 1/4"	3 1/2 K @ 3'-4" = 11'-8"	12	A242	.75	1'-10 7/8"	1		

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
	24T12-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK V7			
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T12-1911	9	A242	1 1/2" x 1 1/4" x .230"	8'-8"	6'-7 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	A242	.75	2 7/8"	10

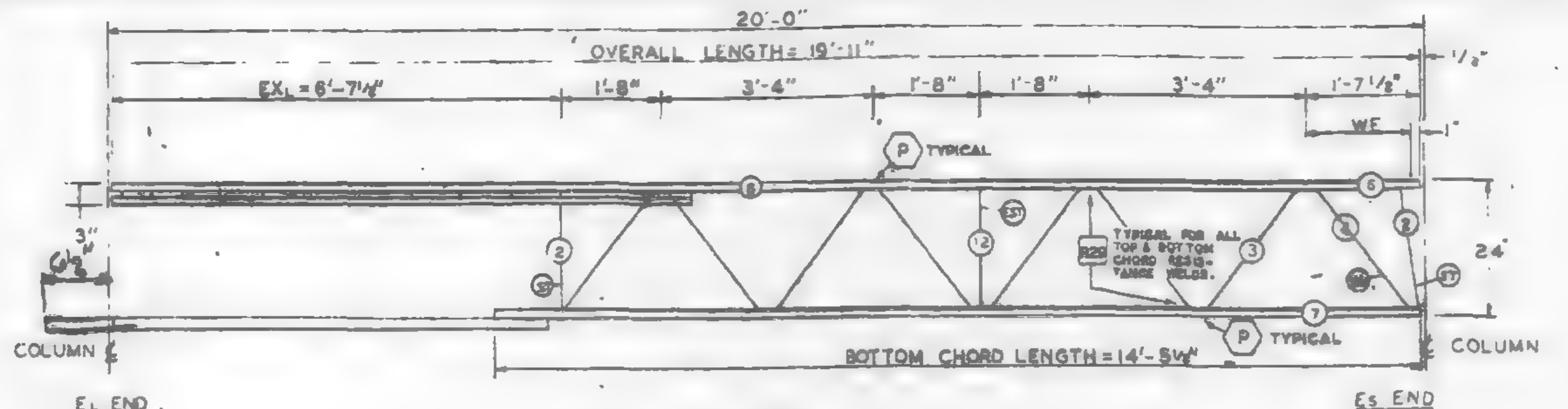
SKILLING-HELLE CHRISTIANSEN-ROBERTSON Structural & Civil Engineers
7/5/68 SK

NO.	DATE	REVISION	BY
△	6-26-68	FILLER SIZE, BOTTOM CHORD LENGTH	T.M.C.

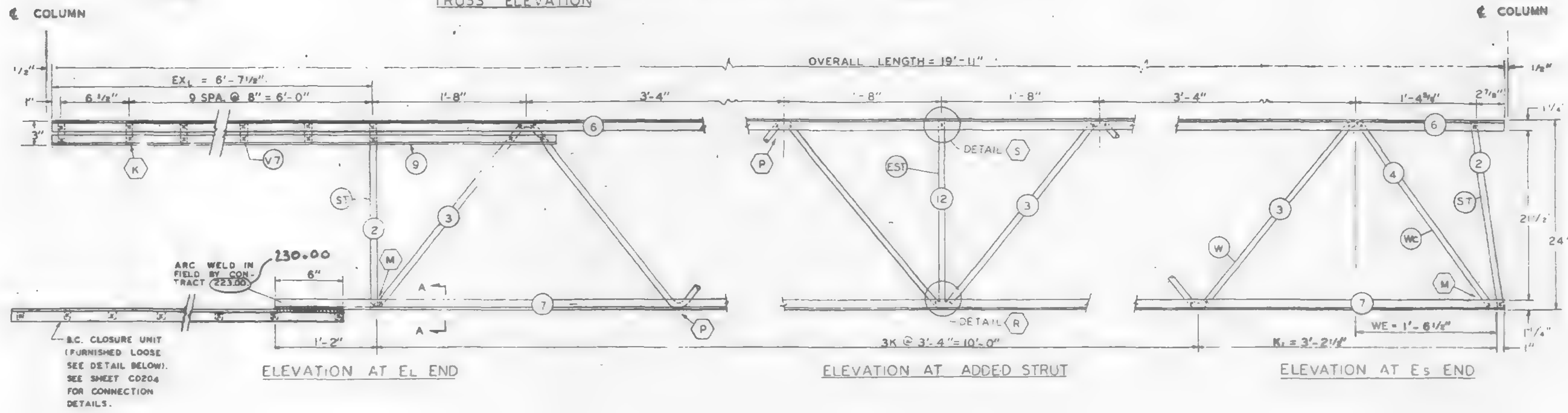
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-7 PLATE
APPROVED FOR FABRICATION BY - FOR P.O.N.Y.A DATE
DRAWN BY [illegible] DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT NO. W T C 221
SHEET NO BT212



TRUSS ELEVATION

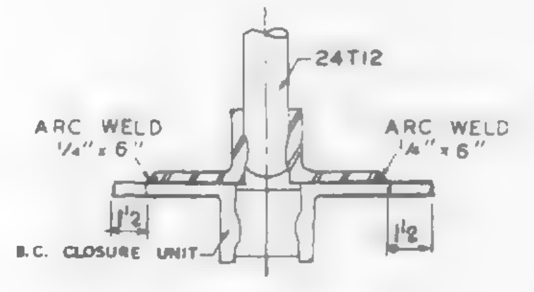


ELEVATION AT EL END — ELEVATION AT ADDED STRUT — ELEVATION AT Es END

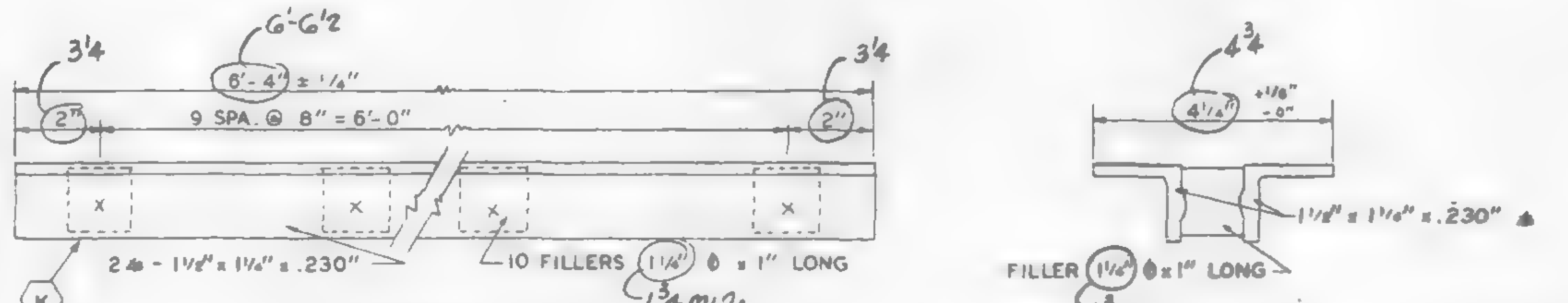
ALL PANEL POINTS RESISTANCE WELDED (x).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 1/8"
DESIGN DEPTH	24"	± 1/8"
PANEL "K"	3'-4"	± 1/8"
PANEL "K1"	3'-2 1/8"	± 1/16"
WEB DEPTH	23 1/2"	± 1/8"
OVERALL LENGTH	19'-11"	± 1/8"



SECTION A-A



ELEVATION — END VIEW

B.C. CLOSURE UNIT

REF. DWG.	
7-AB2-1	2-15-68
7-AB2-7	2-15-68
7-AB4-15.1	10-27-67
7-AB4-16,18 & 19	1-3-68
7-AB4-28,38 & 41	1-3-68

MATERIAL LIST FOR B.C. CLOSURE UNIT		
PCS.	SIZE	LENGTH
2	1 1/2" x 1 1/4" x .23" ∠	6'-4"
10	1 1/4" ϕ FILLERS (1 3/4 min)	1"

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T12-1911	6	A242	1 1/2" x 1 1/4" x .230	19'-11"	7	A242	1 1/2" x 1 1/4" x .230	14'-5 1/2"	3	A242	.75	17'-11 1/8"	3 1/2 K @ 3'-4" = 11'-8"	12	A242	.75	1'-10 1/8"	1		

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
	24T12-1911	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK V7			
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T12-1911	9	A242	1 1/2 x 1 1/4 x .230	6'-8"	6'-7 1/8"	–	—	–	—	2	A242	.75	1'-11 3/4"	A242	.75	2 7/8"	10

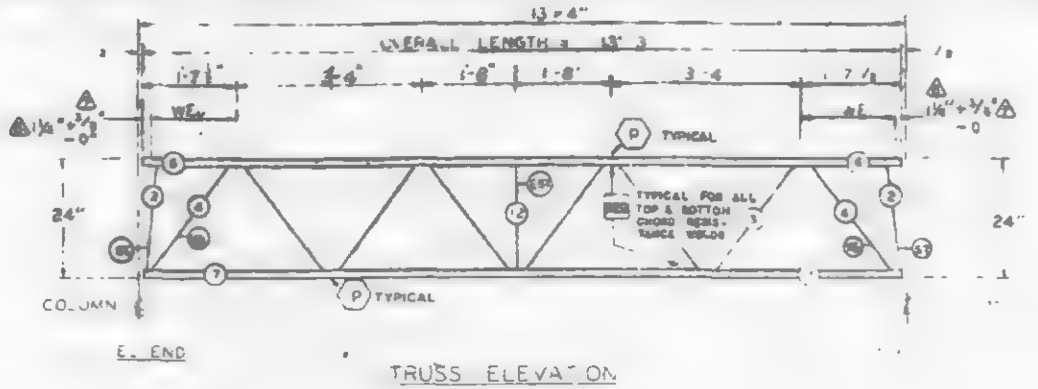
SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
2/26/68 SK

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

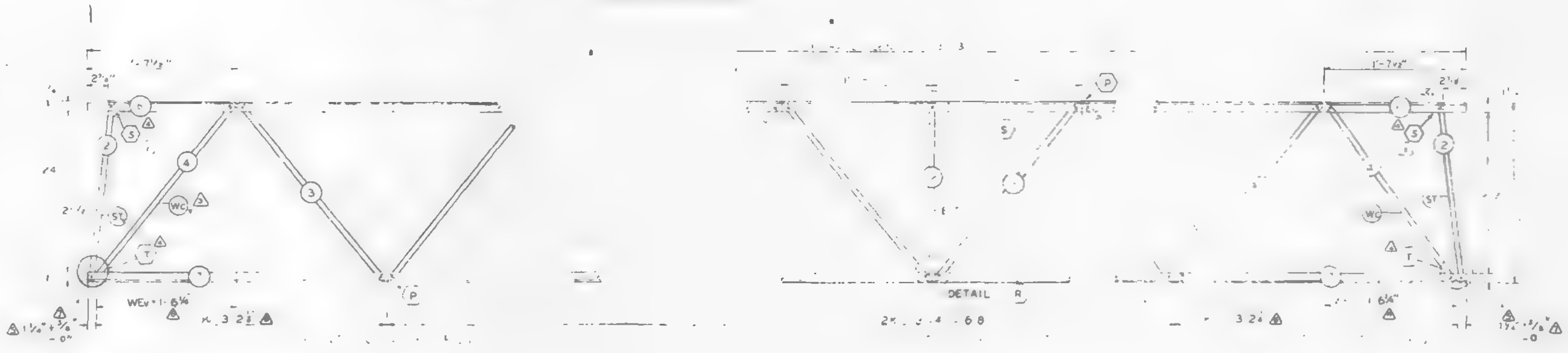
BRIDGING TRUSS 24T12 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-7	PLATE
APPROVED FOR FABRICATION BY ____ FOR PONYA	DATE	DRAWN BY: [illegible] DATE FEB. 24, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE.	CHECKED BY: J.R. PAUL DATE FEB. 24, 1968	IN CHARGE OF PROD. DEV
LACLEDE STEEL CO. DETAILED BY A. C. WEBER		FABRICATION CONT. NO. W. C. 221	SHEET NO BT212



TRUSS ELEVATION



FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
[illegible]AMBER AT M[illegible] PAN	0"	[illegible] 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL [illegible]	3'-4"	± 1/4"
PANEL "K1"	3'-2½"	± 1/4"
[illegible]	23 7/8"	± 1/4"
OVERALL LENGTH	13'-3"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED [illegible] ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ([illegible]). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).

LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R29].

TRUSS DESIGNATION	[illegible]
24T13 133	[illegible] A242 [illegible] 13'-3" [illegible] 13'-3" 3 [illegible] 15'-4" [illegible] 3K [illegible] 3-4 [illegible] 10'-0" [illegible]

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT MK	TYPE STEEL	DIA	LENGTH	WEB "Wc" MK	TYPE STEEL	PCS	DIA	LENGTH
	[illegible] 133	1'-6¼"	2	A242	.75	[illegible]	4	A242	1	.75	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES MK	TYPE STEEL	CHORD SIZE	LENGTH	WEv	DIAGONAL "T" STRUT MK	TYPE STEEL	DIA	LENGTH	INCLINED "ST" STRUT MK	TYPE STEEL	DIA	LENGTH	END STIFFENER TYPE STEEL	MK	DIA	LENGTH	TYPE STEEL	MK	DIA	LENGTH	WEB "Wc" MK	TYPE STEEL	PCS.	DIA	LENGTH
	24T13 133	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.75	1'-11½"	—	—	—	—	—	—	—	—	4	A242	1	.75	2'-5½"

NO	DATE	REVISION	BY
6	8-29-68	END DIST. (2)	T.M.C.
[illegible]	8-28-68	AS NOTED	T.M.C.
5	7-27-68	END DIST. (2)	[illegible]
4	7-8-68	AS NOTED	T.M.C.
3	6-26-68	LENGTH OF "EST" WCv. REF DRWG.	T.M.C.
2	4-25-68	WEB DIMENSIONS	T.M.C.
1	3-18-68	WEB	J.R.P.

BR[illegible] TRUSS 24T13 [illegible] 13'-3" [illegible]

WORLD TRADE CENTER TOWERS A B [illegible]

[illegible] STEEL COMPANY

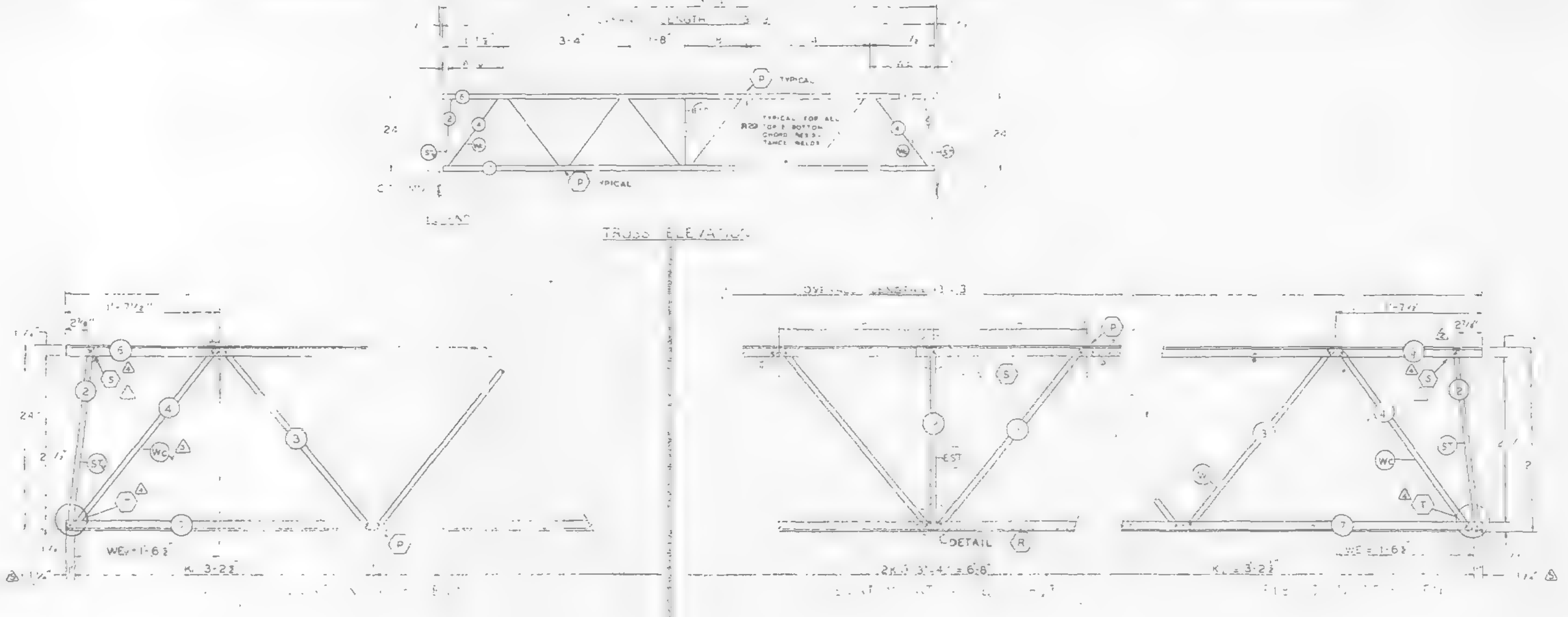
[illegible] ILLINOIS

James White 9/4/68

FEB 26 1968

LACLEDE STEEL CO.

22 ST213



ALL PANEL POINTS RESISTANCE WELDED [illegible] ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES [illegible]. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie.(A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie 229

REF DRWG

TRUSS DESIGNATION	TWO ANGLES									MAIN WEB				VERTICAL "EST" STRUT				NUMBER REQUIRED
24T13-133	5	A242	[illegible]	[illegible]	13'-3"	3	[illegible]	[illegible]	13'-3"	3	A242 .75	15'-4¼"	3K@3'-4"	=10'-0"	12	A242	.75	1

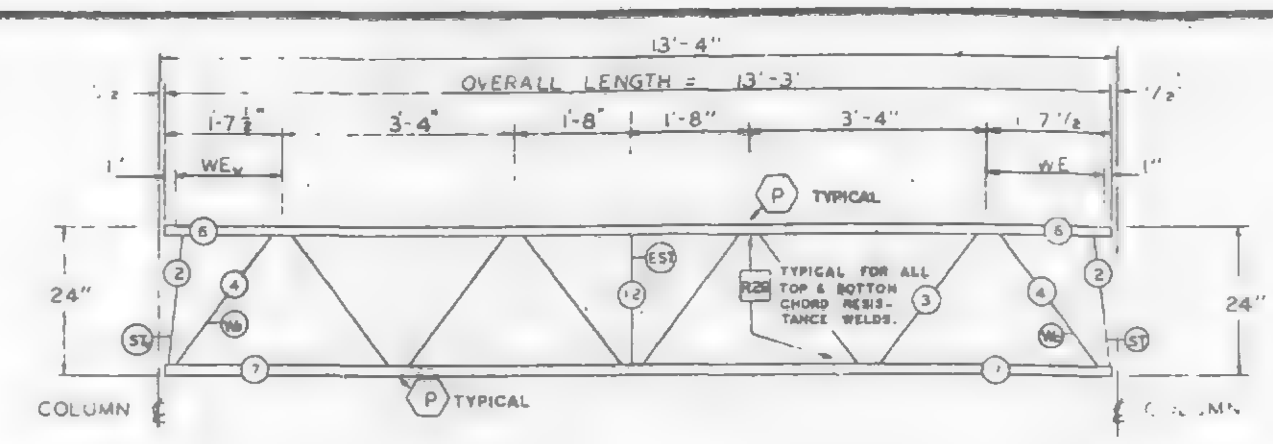
TRUSS DESIGNATION		INCLINED ST STRUT			WEB "WC"				
		MK	TYPE STEEL	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T13-133	1'-6½"	2	A242	.75	4	A242	1	.75	2'-5"

TRUSS DESIGNATION	BEARING ANGLES	WEV	DIAGONAL STRUT	INCLINED STRUT	END STIFFENER	WEB "WC"				
						MK	TYPE STEEL	PCS	DIA	LENGTH
24T13-133	—	6½	—	2 A242 .75 1'-11½"	—	4	A242	1	.75	2'-5"

NO	DATE	REVISION	BY
5	7-27-68	END DIST. (2)	TMC
4	7-8-68	AS NOTED	TMC
3	6-25-68	LENGTH OF "EST" WCv. REF. DRWG.	TMC
2	4-25-68	WEB DIMENSIONS	TMC
1	3-12-68	WEB	[illegible]

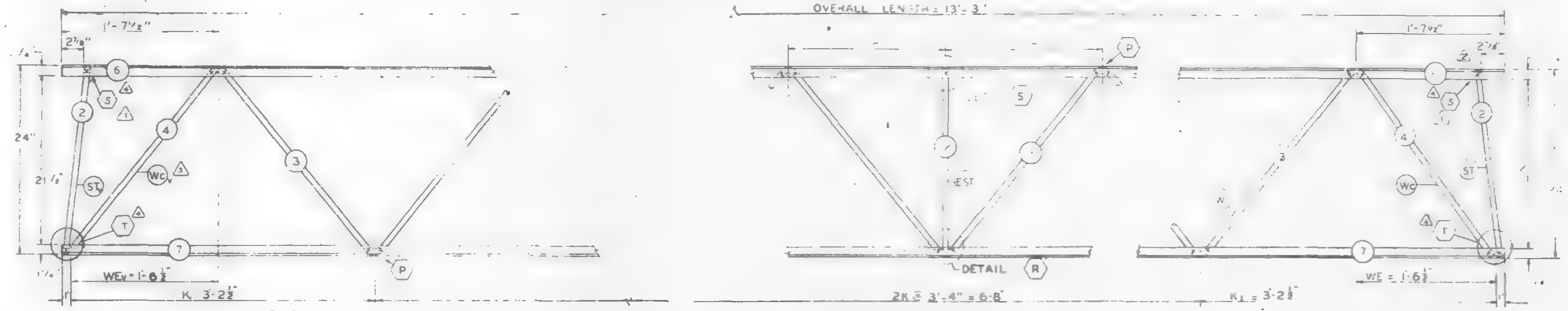
WORLD TRADE CENTER TOWERS A B

WAB 2/2/68



TRUSS ELEVATION

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	13'-3"	± 3/8"



ALL PANEL POINTS RESISTANCE WELDED 1x1. ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R29.

△ REF. DRWG.

7-AB2-1	4-1-68
7-AB2-8	2-19-68
7-AB4-15,1,19	1-3-68
7-AB4-16,18	5-6-68
7-AB4-28 & 41	1-3-68
7-AB4-38	4-1-68

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K	MK	TYPE STEEL	DIA	LENGTH ▲	NUMBER REQUIRED
24T13-133	6	A242	1 1/2 x 1 1/4 x 230	13'-3"	7	A242	1 1/2 x 1 1/4 x 230	13'-3"	3	A242	.75	15'-4 1/2"	3K @ 3'-4" = 10'-0"	12	A242	.75	1'-10 7/8"	1

ES END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA	LENGTH
24T13-133	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "STv" STRUT				END STIFFENER MK. V5			END STIFFENER MK. V6			WEB "Wcv" △3				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA	LENGTH
24T13-133	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

NO	DATE	REVISION	BY
△4	7-8-68	AS NOTED	T.M.C.
△3	6-26-68	LENGTH OF "EST", WCv. REF. DRWG.	T.M.C.
△2	4-25-68	WEB DIMENSIONS	T.M.C.
△1	3-19-68	WEB	J.S.P.

LACLEDE ELECTROCOAT
RED NO. C001

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

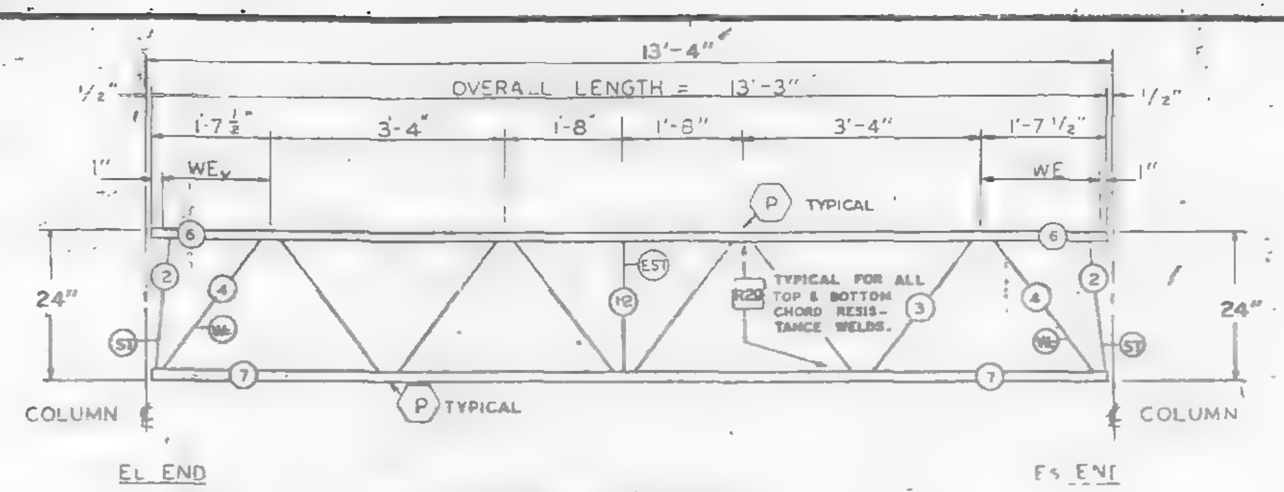
BRIDGING TRUSS 24T13 x 13'-3" LONG
WORLD TRADE CENTER TOWERS A-B

LACLEDE STEEL COMPANY
AT MADISON, ILLINOIS

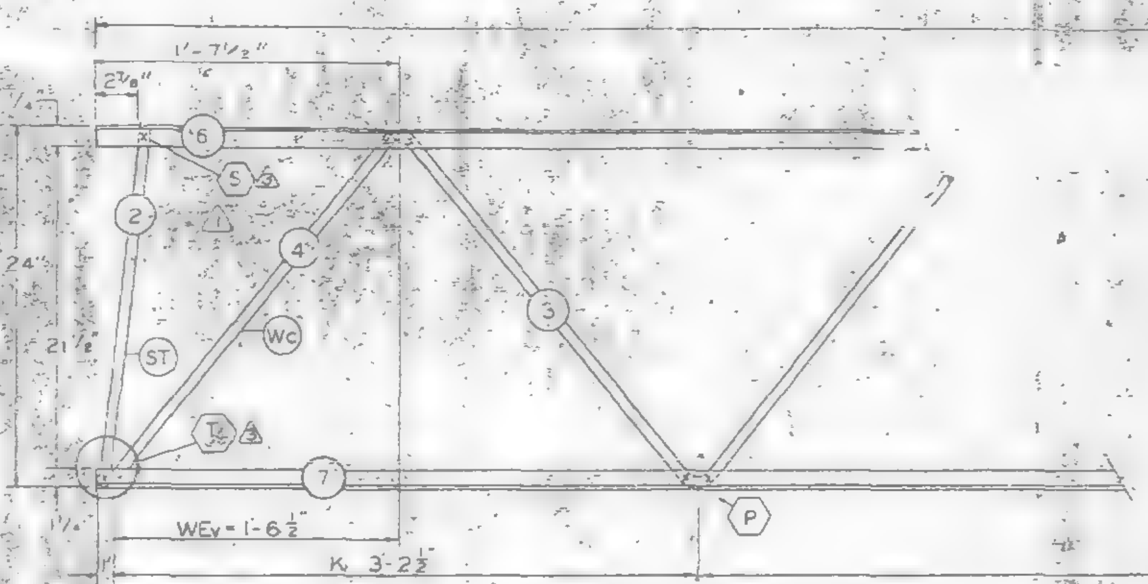
ERECTION DRAWING NO. 7-AB2-8

JW 7/24/68

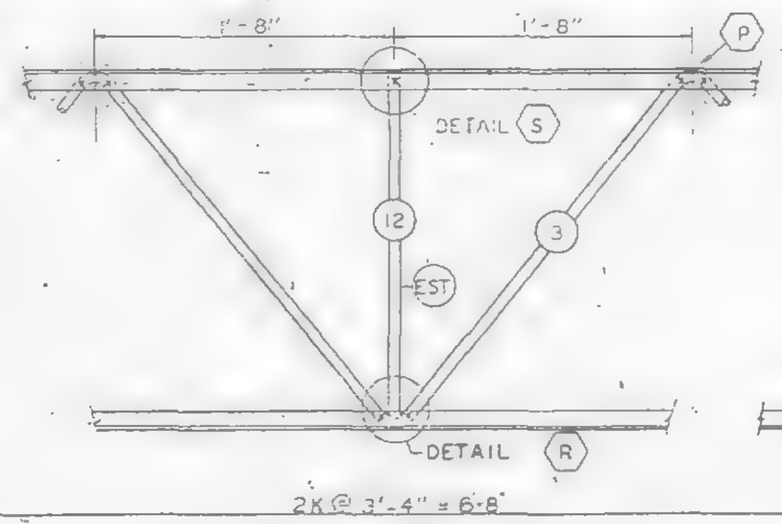
DRAWN BY J.R. DATE FEB 24 1968
CHECKED BY J.R. PAUL DATE FEB 26 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT. NO. 221
SHEET NO. BT213



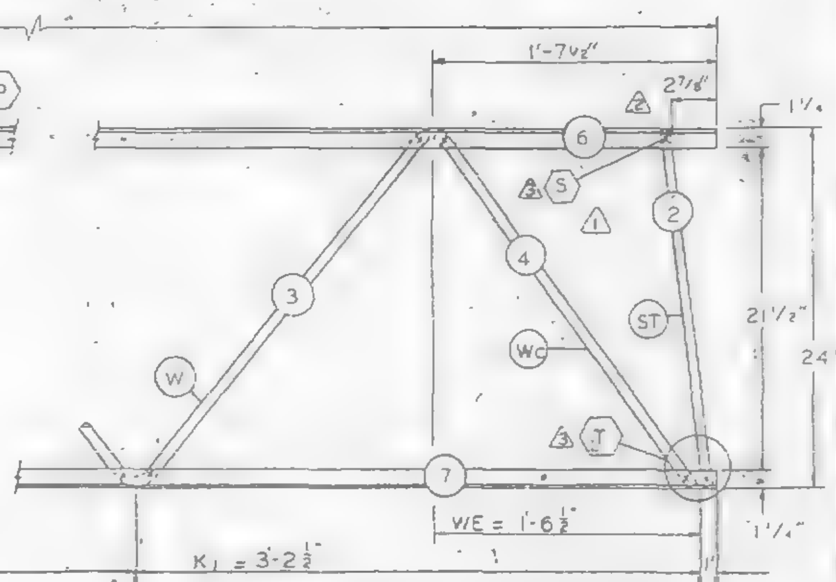
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K₁"	3'-2½"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	13-3"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

⚠1 LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie.: [R29].

REF. DRWG.

7-A82-1	2-15-68
7-A82-8	2-15-68
7-A84-15.1	10-27-67
7-A84-16 18 & 19	1-3-68
7-A84-28 38 & 41	1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED
24T13-133	6	A242	1½"x1¼ x 230	13'-3"	7	A242	1½"x1¼"x 230	13'-3"	3	A242	.75	15'-4½"	3K @ 3'-4" = 10'-0"	12	A242	.75	1'-10⅛"	1

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13-133	1'-6½"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5½"

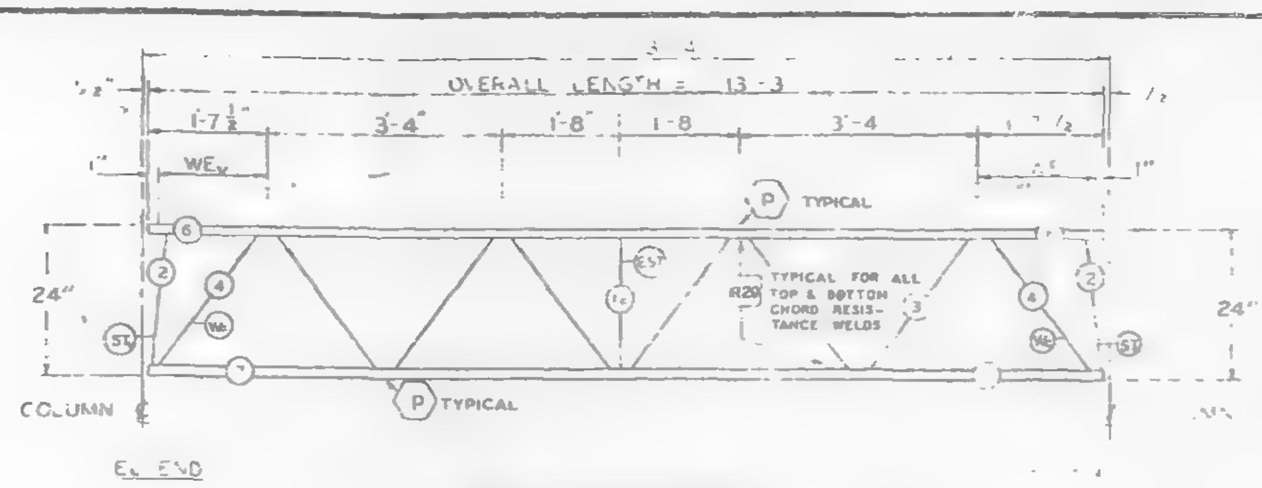
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEV	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13-133	–	—	—	—	1'-6½"	–	—	–	—	2	A242	.75	1'-11¾"	—	–	—	—	—	—	4	A242	1	.75	2'-5½"

NO.	DATE	REVISION	BY
⚠3	7-8-68	AS NOTED	T.M.C.
⚠2	4-25-68	WEB DIMENSIONS	T.M.C.
⚠1	3-19-68	WEB	J.R.P.

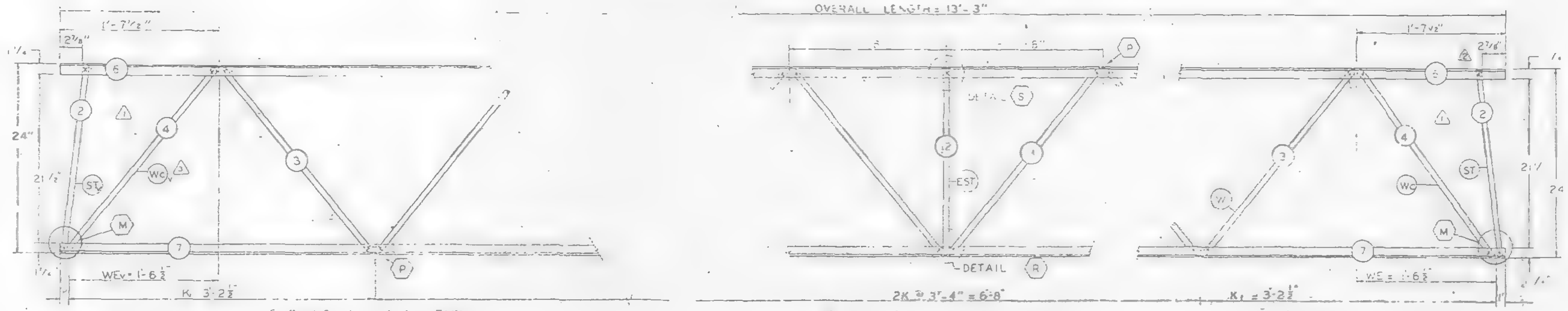
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13 x 13'-3" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-A82-8 PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 7/9/68
DRAWN BY 1.G. DATE FEB 24 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R.PAUL DATE FEB 24 1968
IN CHARGE OF PROD. DEV.
STAMPED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO BT213



TRUSS ELEVATION



FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± /4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± /4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	13'-3"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

(1) LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R29.

(3) REF. DRWG.

7-AB2-1	4-1-68
7-AB2-8	2-15-68
7-AB4-15 & 19	1-3-68
7-AB4-16, 18	5-6-68
7-AB4-28 & 41	1-3-68
7-AB4-38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT (3)				NUMBER REQUIRED
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K	MK	TYPE STEEL	DIA	LENGTH	
24T13-133	6	A242	1 1/2" x 1 1/4" x .230	13'-3"	7	A242	1 1/2" x 1 1/4" x .230	13'-3"	3	A242	.75	15'-4 1/2"	3K @ 3'-4" = 10'-0"	12	A242	.75	1'-10 7/8"	1

ES END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T13-133	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "STv" STRUT				END STIFFENER						WEB "Wcv" (3)				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T13-133	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

NO.	DATE	REVISION	BY
3	6-26-68	LENGTH OF "EST", WCV. REF. DRWG.	T.M.C.
2	4-25-68	WEB DIMENSIONS	T.M.C.
1	3-19-68	WEB.	J.R.P.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13 x 13'-3" LONG
WORLD TRADE CENTER TOWERS "A-B"

LACLEDE STEEL COMPANY
AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB2-8 PLATE

APPROVED FOR FABRICATION BY JW DATE 7/5/68

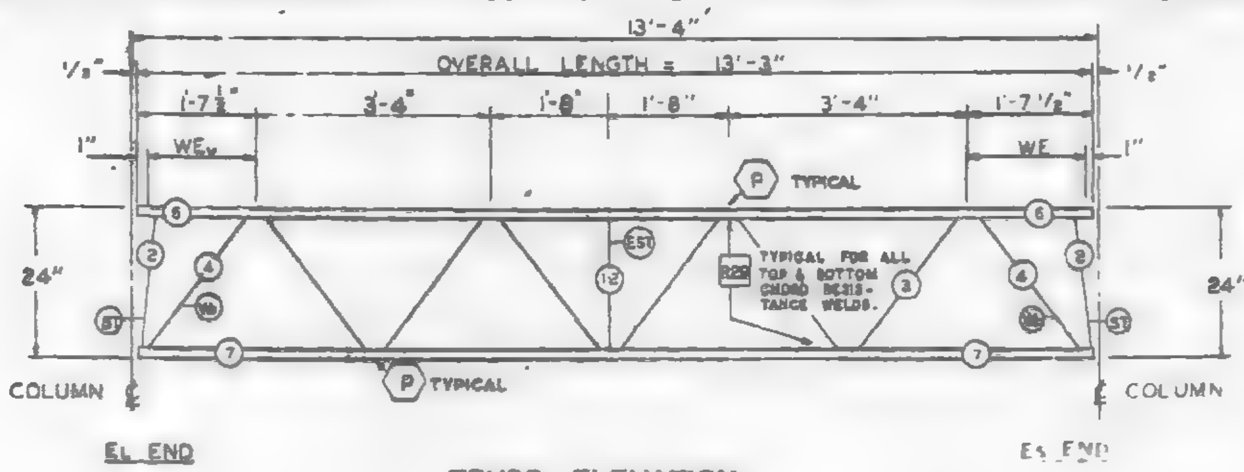
DRAWN BY J.A. DATE FEB 24 1968

CHECKED BY J.R.PAU. DATE FEB 24 1968

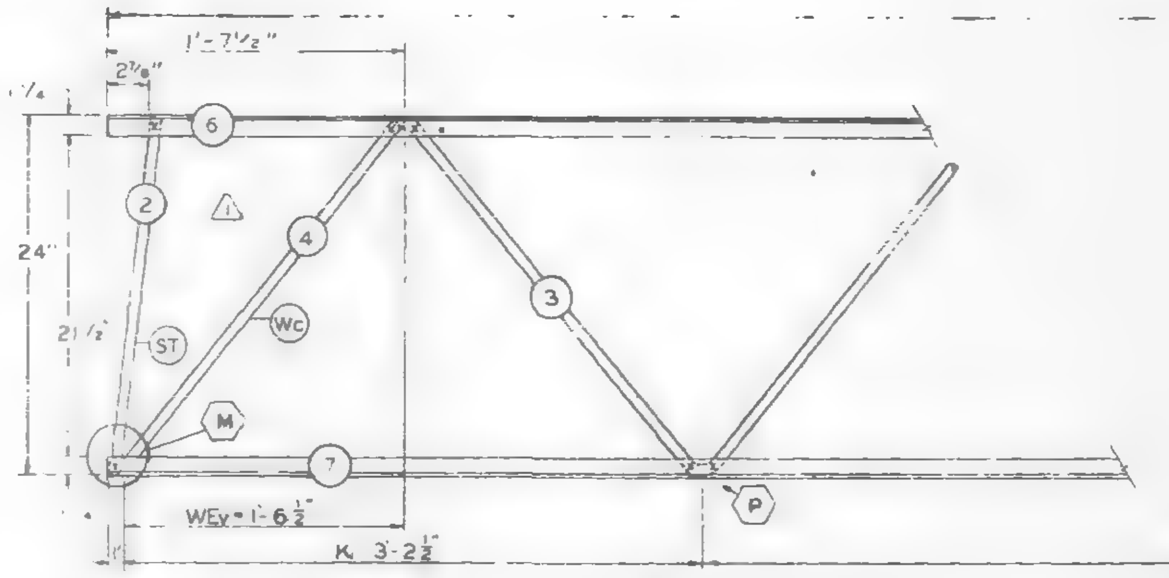
IN CHARGE OF PROJ. DEV.

FABRICATION CONT NO 221

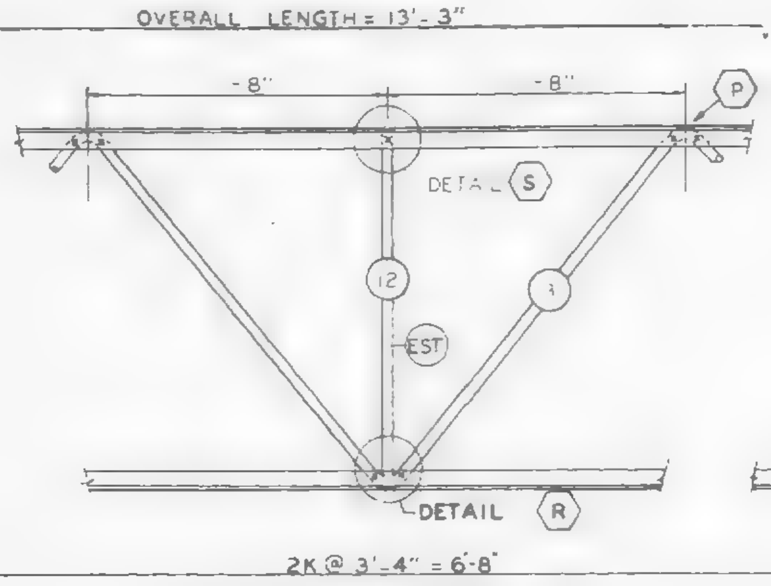
SHEET NO BT 213



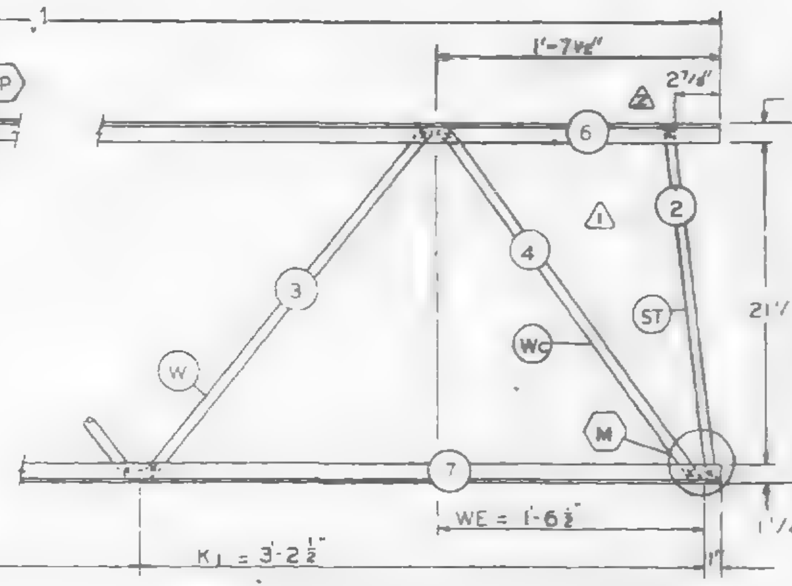
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT MIDSPAN



ELEVATION AT ES END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/8"
PANEL "K"	3'-4"	± 1/8"
PANEL "K1"	3'-2½"	± 1/8"
WEB DEPTH	22 9/16"	± 1/8"
OVERALL LENGTH	13'-3"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R29].

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED
24T13-133	6	A242	1½ x 1¼ x 230	13'-3"	7	A242	1½ x 1¼ x 230	13'-3"	3	A242	.75	15'-4⅛"	3K @ 3'-4" = 10'-0"	12	A242	75	1'-10⅛"	1

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13-133	1'-6½"	2	A242	75	1'-11¾"	4	A242	1	.75	2'-5⅛"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER						WEB "Wc"				
															MK VS			MK VS							
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13-133	–	–	—	—	1'-6½"	–	—	–	—	2	A242	.75	1'-11½"	—	–	—	—	–	—	4	A242	1	.75	2'-5⅛"

REF. DRWG.
7-AB2-1 2-15-68
7-AB2-8 2-15-68
7-AB4-151 10-27-67
7-AB4-16 18 & 19 1-3-68
7-AB4-28 38 & 41 1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

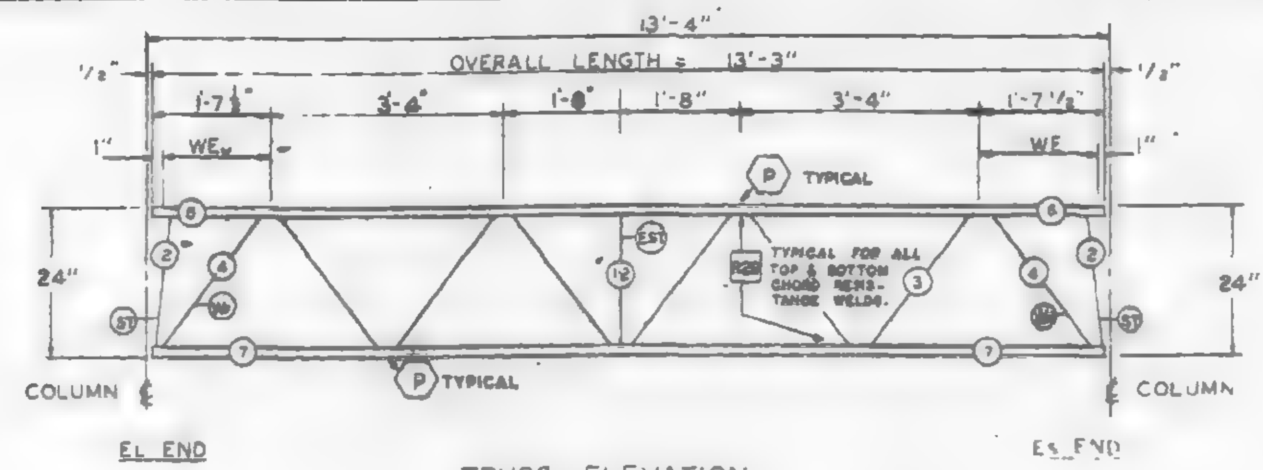
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13 x 13'-3" LONG
WORLD TRADE CENTER TOWERS A-B

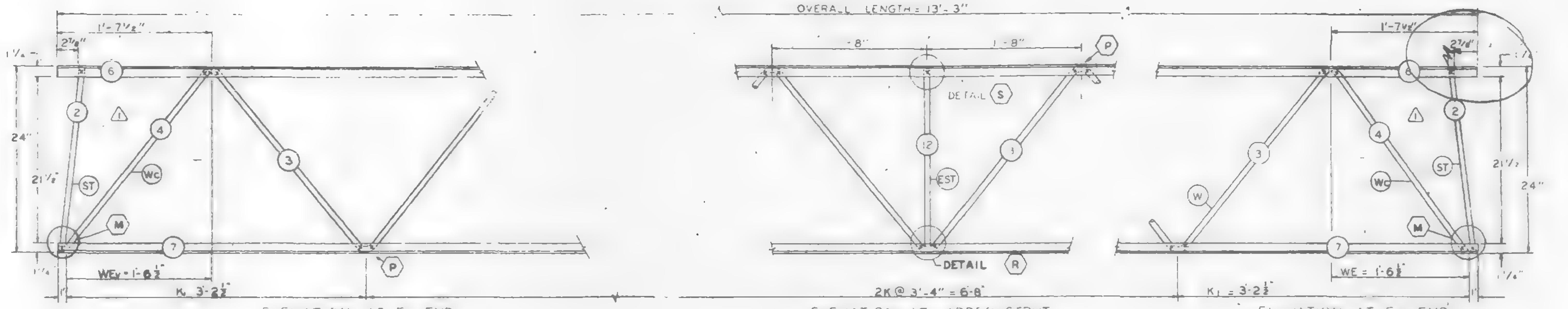
FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB2-8	PLATE
APPROVED FOR FABRICATION BY James White FOR PONYA	DATE 5/1/68	DRAWN BY: ___ DATE FEB 24 1968	
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR	DATE	CHECKED BY J.R. PAUL DATE FEB 24 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT NO W.T.C. 221	SHEET NO BT213

NO.	DATE	REVISION	BY
2	4-25-68	WEB DIMENSIONS	T.M.C.
1	3-18-68	WEB	J.R.P.



TRUSS ELEVATION



ELEVATION AT EL END — ELEVATION AT ADDED STRUT — ELEVATION AT Es END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2½"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	13'-3"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED ( ). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ( ). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

⚠ LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R29.

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED
24T13-133	6	A242	1½"x1¼ x 230	13'-3"	7	A242	1½"x1¼ x 230	13'-3"	3	A242	.75	15'-4½"	3K @ 3'-4" = 10'-0"	12	A242	.75	1'-10⅛"	1

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
24T13-133	1'-6½"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5½"

EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T13-133	–	—	—	—	1'-6½"	–	—	–	—	2	A242	.75	1'-11½"	—	–	—	—	–	—	4	A242	1	.75	2'-5½"

REF. DRWG.

7-A82-1	2-15-68
7-A82-8	2-15-68
7-A84-15.1	10-27-67
7-A84-16 18 & 19	1-3-68
7-A84-28 38 & 41	1-3-68

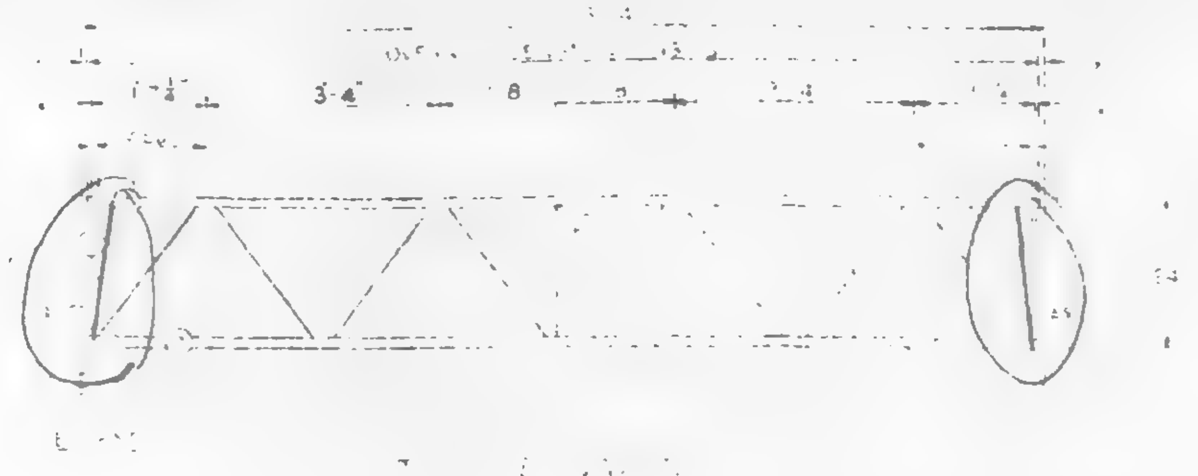
PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

NO.	DATE	REVISION	BY
⚠	3-19-68	WEB	J.R.P.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13 x 13'-3" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-A82-8 PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
DRAWN BY DATE FEB 26 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB 26 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. AIDER
FABRICATION CONT NO W.T.C. 221
SHEET NO BT213



ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

BOXED IN LETTERS INDICATE WELD DETAILS, ie. (A).

Designation	MK	Type Steel	Chord Size	Length	MK	Type Steel	Chord Size	Length	MK	Type Steel	Dia	Length	No. of K	MK	Type Steel (Vertical Strut)	Dia	Length	Number Required
24T13-133	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13'-3"	3	A242	.75	20-3⅜	[illegible]	2	A242	.75	[illegible]	[illegible]

Designation		MK	Type Steel	Dia	Length
24T13-133	[illegible]	[illegible]	A242	[illegible]	[illegible]

INCLINED

Truss Designation	MK	Type Steel (Bearing Angles)	Chord Size	Length	Lv	MK	Type Steel (Diagonal Strut)	Dia	Length	MK	Type Steel (Inclined Strut)	Dia	Length	Type Steel (End Stiffener)	MK V5 Dia	Length	Type Steel	MK V6 Dia	Length
24T13-133	—	—	—	—	1'-6½"	—	—	—	—	2	A242	.75	1'-11½"	—	—	—	—	—	—

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
APPROVED
3/20/67 SK

BRIDGING TRUSS DETAILS

WORLD TRADE CENTER

THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13 13'-3" LONG

WORLD TRADE CENTER TOWERS A-B

LACLEDE STEEL COMPANY

MADISON, ILLINOIS

A82-8

FEB 24 1967

LACLEDE STEEL CO.

221

8T213

ALL [illegible] RESISTANCE WELDED [illegible] ARC WELDS [illegible] AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES [illegible]
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST2[illegible].
LETTERS IN HEXAGON INDICATE WELD [illegible] LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD [illegible] IDENTIFIED IN THE QUALITY CONTROL PROGRAM [illegible]

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB			
24T13A-133	5	A242	[illegible] 23	13'-3"	A242	[illegible]	13'-3"	3	A242	.75	15'-4½"	[illegible]

Es END	TRUSS DESIGNATION		INCLINED END STRUT				WEB				
			TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T13A 133	1'-6¼"	A242	.75		4	A242		.75	2'-5 ¾"

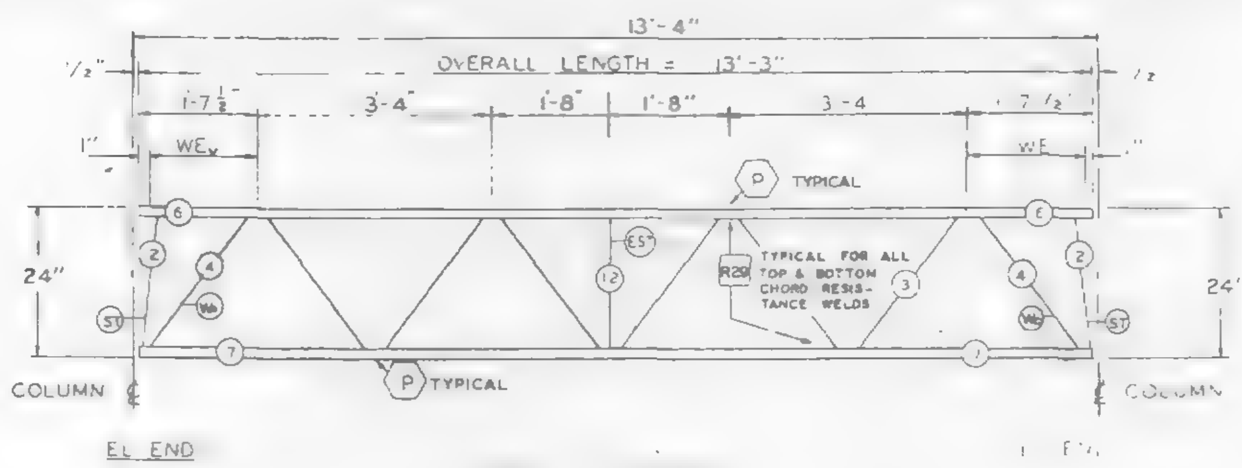
EL END	TRUSS DESIGNATION	BEARING ANGLES			WEB	DIAGONAL END STRUT			INCLINED END STRUT				WEB				
		TYPE STEEL	SIZE	LENGTH		TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T13A 133	—	—	—	1'-6¼"	—	—	—	2	A242	.75	1'-11⅜"	4	A242		.75	2'-5 ¾"

NO	DATE	REVISION	BY
3	9-26-68	AS NOTED	
2	8-28-68	AS NOTED	
1	4-25-68	END STRUT DIMENSIONS	

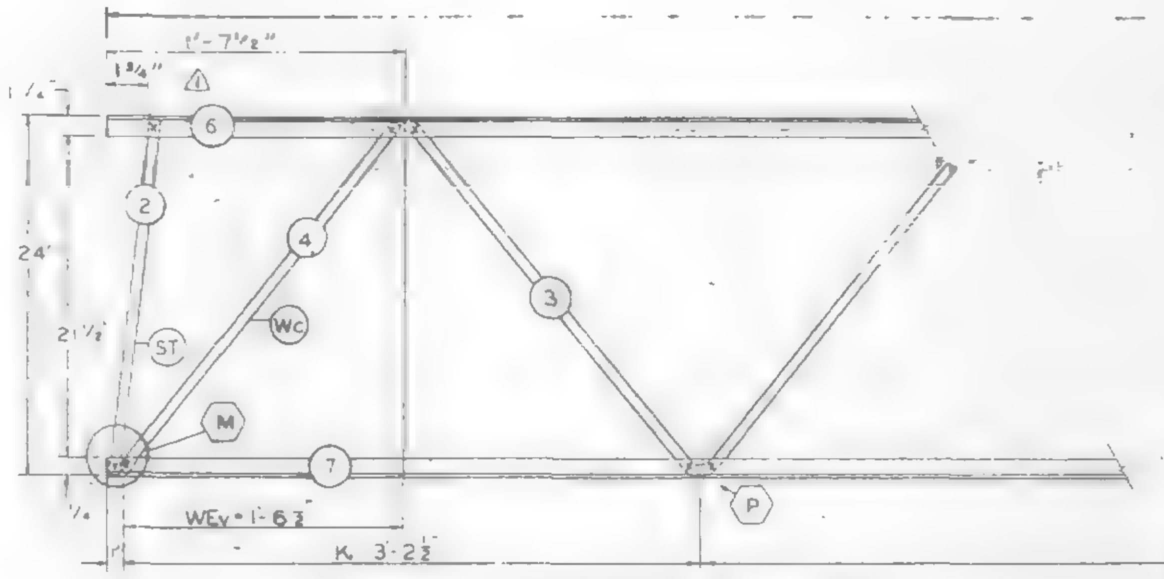
9/4/68

22

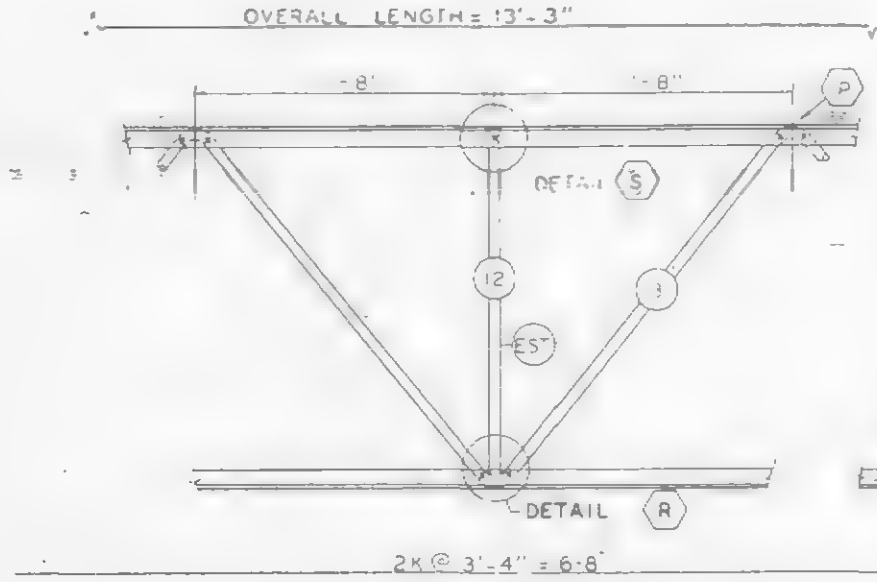
ST[illegible]



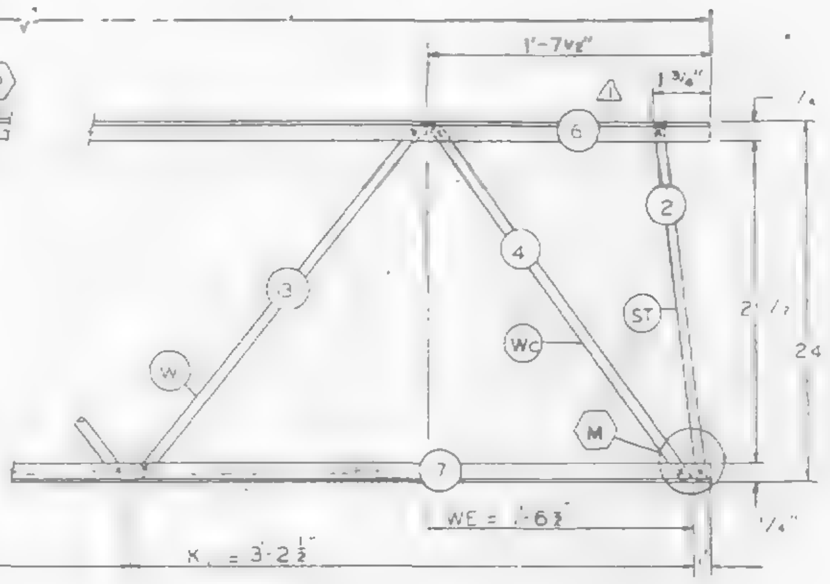
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT LADDER STRUT



ELEVATION AT ES END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2½"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	13-3'	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬). ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R29].

REF. DRWG.
7-AB2-1 2-15-68
7-AB2-B 2-15-68
7-AB4-151 10-27-67
7-AB4-16 18 & 19 1-3-68
7-AB4-28 38 & 41 1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO J0001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED
24T13A -133	6	A242	1½"x1¼"x 230	13'-3"	7	A242	1½"x1¼ x 230	13'-3"	3	A242	.75	15'-4⅛"	3K@ 3'-4" = 10'-0"	12	A242	75	1'-10⅛"	1

ES END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	PCS.	DIA	LENGTH
	24T13A -133	1'-6½"	2	A242	75	1'-11¾"	4	A242	1	.75	2'-5⅛"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER						WEB "Wc"				
															MK V5			MK V6							
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13A -133	—	—	—	—	1'-6½"	—	—	—	—	2	A242	.75	1'-11½"	—	—	—	—	—	—	4	A242	1	.75	2'-5⅛"

NO.	DATE	REVISIONS	BY
1	4-25-68	END STRUT DIMENSIONS	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13A x 13'-3" LONG
WORLD TRADE CENTER TOWERS A-B

DESIGNED BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB2-B PLATE

APPROVED FOR FABRICATION BY FOR PONYA DATE 5/1/68

DRAWN BY DATE FEB 24 1968

APPROVED FOR FABRICATION BY FOR FABRICATOR DATE

CHECKED BY J.B. PAUL DATE FEB 24 1968

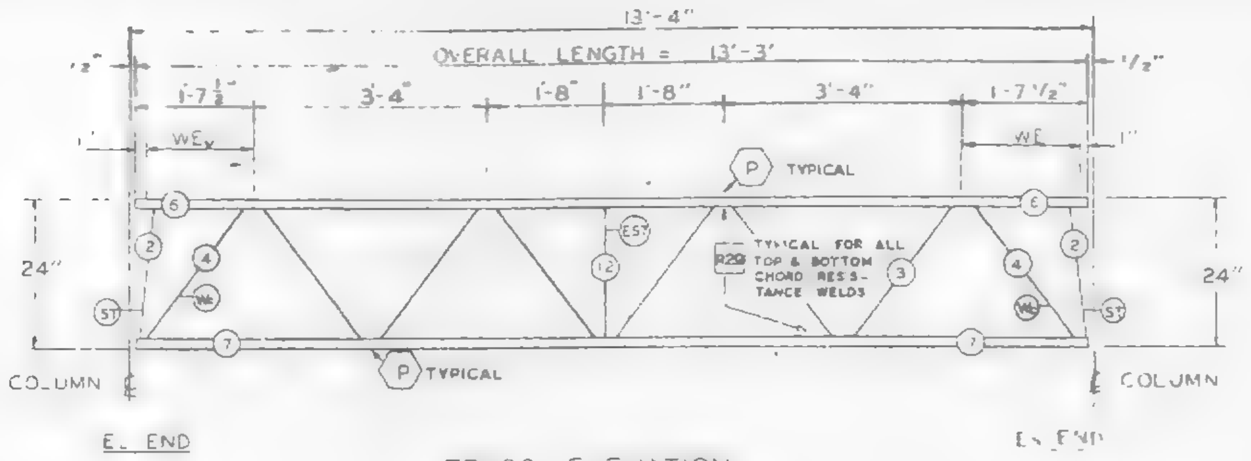
IN CHARGE OF PROD DEV

LACLEDE STEEL CO.

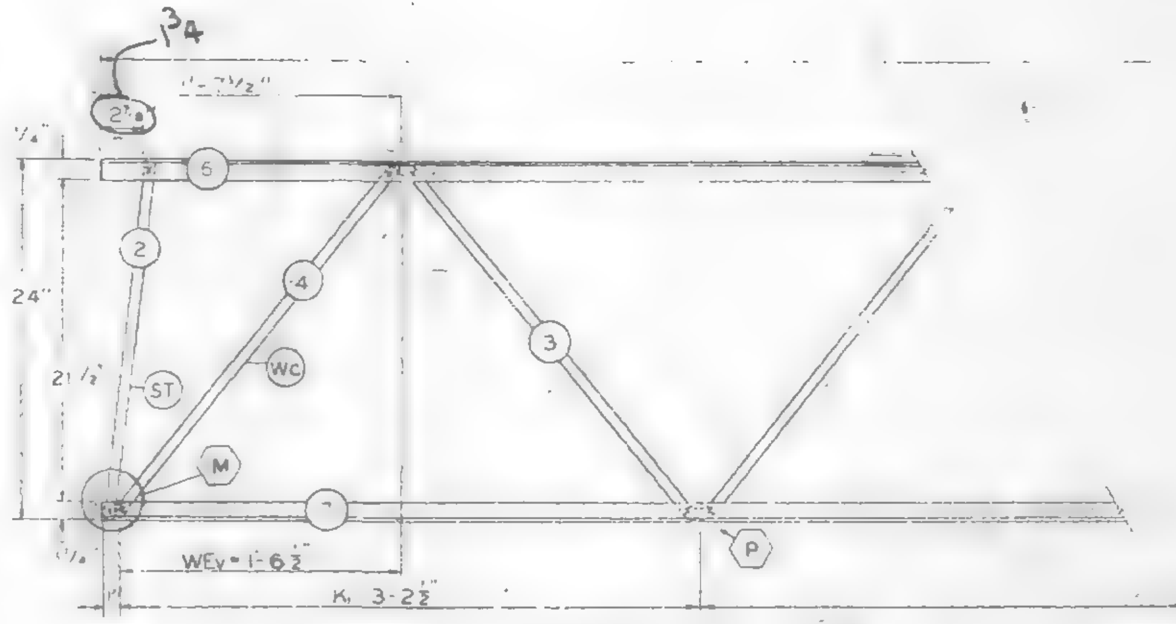
DETAILED BY A.T. WEBER

FABRICATION CONT NO WTC 221

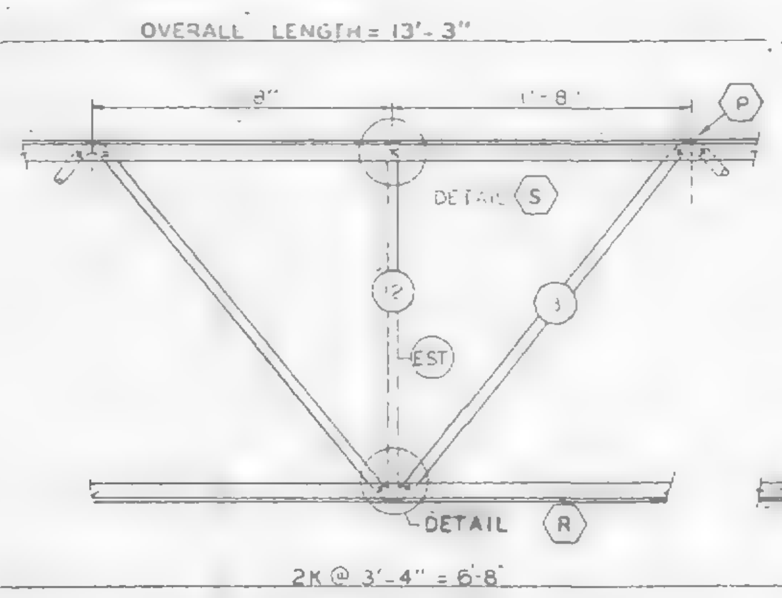
SHEET NO BT213A



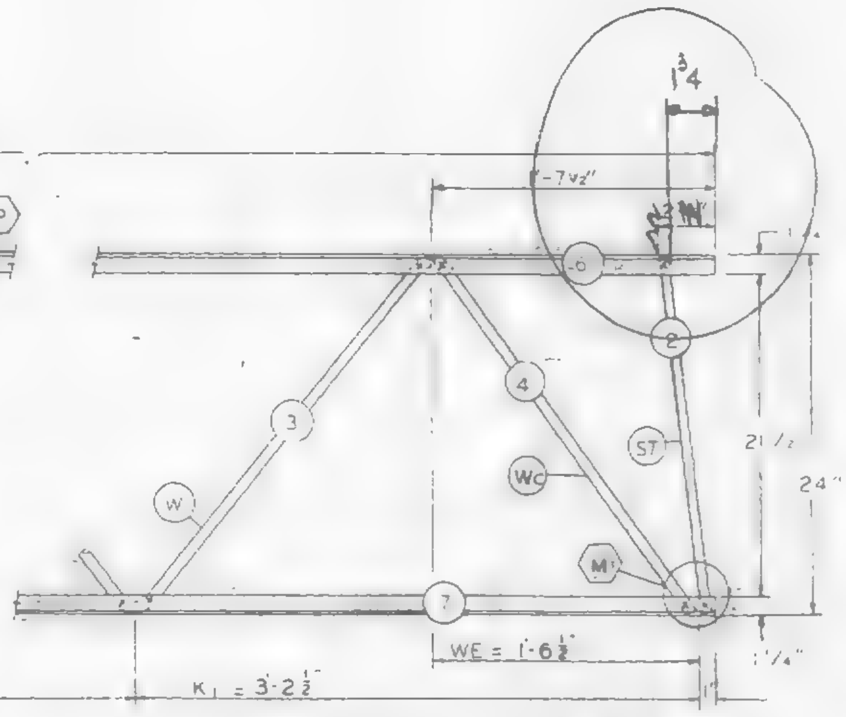
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT LADDED STRUT



ELEVATION AT EL END

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3-2 1/2"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	13-3"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291. LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. A. LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM; ie. R29.

REF. DRWG.

7-AB2-1	2-15-68
7-AB2-8	2-15-68
7-AB4-15	10-27-67
7-AB4-16 18 & 19	1-3-68
7-AB4-28 38 & 41	1-3-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED
24T13A -133	6	A242	1 1/2 x 1 1/4 x 230	13'-3"	7	A242	1 1/2 x 1 1/4 x 230	13'-3"	3	A242	.75	15'-4 1/2"	3K @ 3'-4" = 10'-0"	12	A242	.75	1'-0 1/8"	1

EL END	TRUSS DESIGNATION	WE	INCLINED ST STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13A -133	1'-6 1/2"	2	A242	.75	1'-11 3/4"	4	A242	1	.75	2'-5 1/2"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	PCS	DIA.	LENGTH
	24T13A -133	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

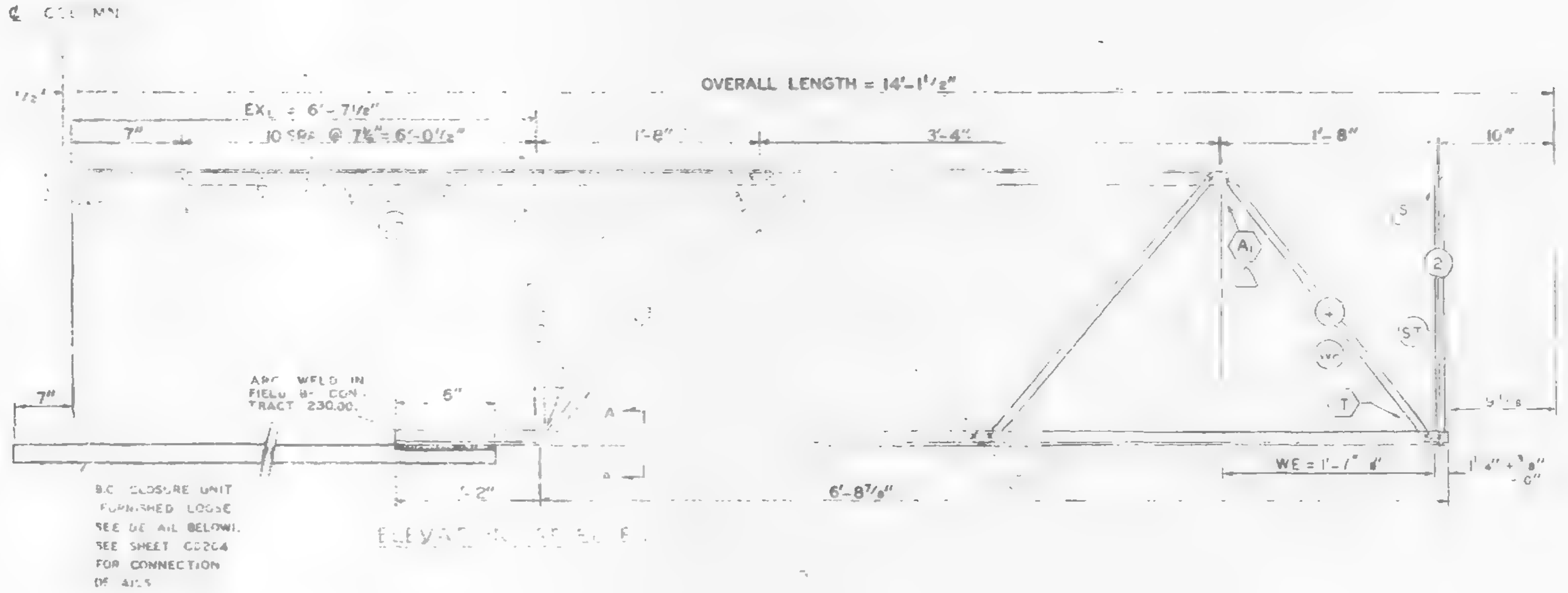
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

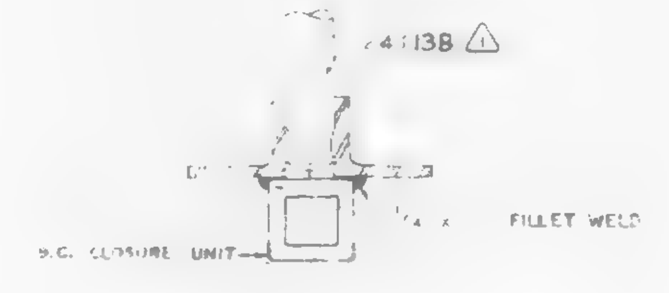
BRIDGING TRUSS 24T13A x 13'-3" LONG
WORLD TRADE CENTER TOWERS A-B

LACLEDE STEEL COMPANY
AT MADISON, ILLINOIS

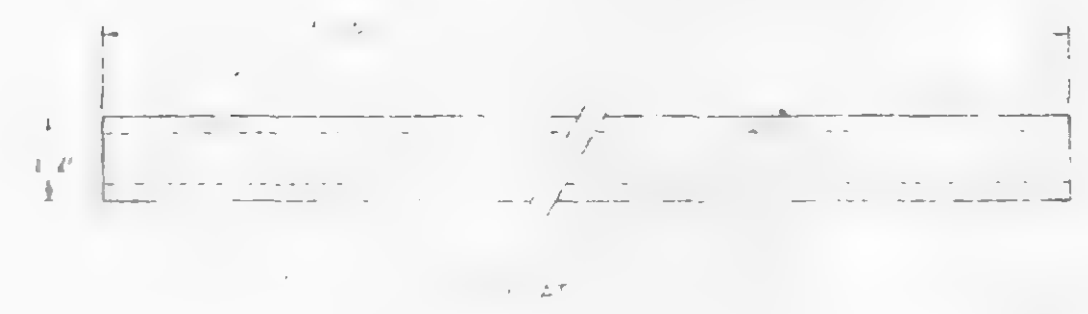
DESIGN DRAWING NO 7-AB2-8 PLATE

APPROVED FOR FABRICATION FOR PONYA — DATE
APPROVED FOR FABRICATION FOR FABRICATOR — DATE
DRAWN BY — DATE FEB 24 1968
CHECKED BY JH PAL — DATE FEB 24 1968
IN CHARGE OF PROJ. DEV.
LACLEDE STEEL CO.
FABRICATION CONT NO 221
SHEET NO BT213A





SECTION A-A



END VIEW

PCS	TYPE STEEL			
1	A242			

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"						VERTICAL STRUT				TRUSS DATA
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.				TYPE STEEL		LENGTH	NUMBER	
24T13B-1415	5	A242	1 1/2 x 1 1/4 x 230	14'-1 1/2"	7	A242	1 1/2 x 1 1/4 x 230	7'-10 7/8"	3	A242	.75	7'-8 1/4"	1 1/2 K	3' 4	5'-0"	–	–	–	

E3 END	TRUSS DESIGNATION	WE	VERTICAL "S" STRUT				WEB "WC"				
			MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	DIA.	PCS	LENGTH
	24T13B-1415	1'-7 5/8"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 3/4"

E_L END	TRUSS DESIGNATION	BEARING ANGLES				EX_L	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK V7			
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	NO. REQ'D
	24T13B-1415	9	A242	1 1/2 x 1 1/4 x 230	8'-8"	6'-7 1/2"	–	—	—	—	2	A242			A242	.75	2 1/4	10

NO	DATE	REVISION	BY
1	2-25-69	AS NOTED	R.J.P.

BRIDGING TR

"WORLD TRADE

THE PORT OF NE

BRIDGING TRUSS 24T13B x

WORLD TRADE CENTER TOWERS

FABRICATION BY LACLEDE STEEL

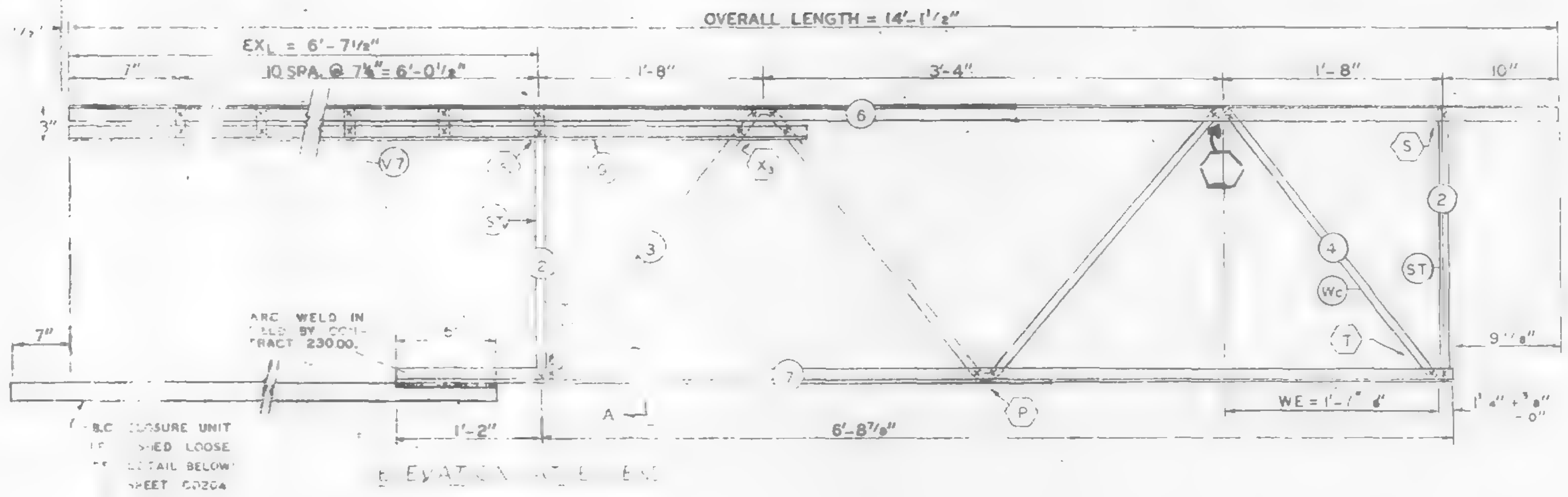
FABRICATED AT MADISON, ILLINOIS

APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White DATE 3/10/69

APPROVED FOR FABRICATION BY FOR FABRICATOR LACLEDE STEEL CO.

DETAILED BY

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	±1/8"
PANEL "K"	3'-4"	±1/4"
PANEL [illegible]	---	[illegible]
WEB DEPTH	23 [illegible]	±1/4"
OVERALL LENGTH	14'-1 1/2"	±1/8"

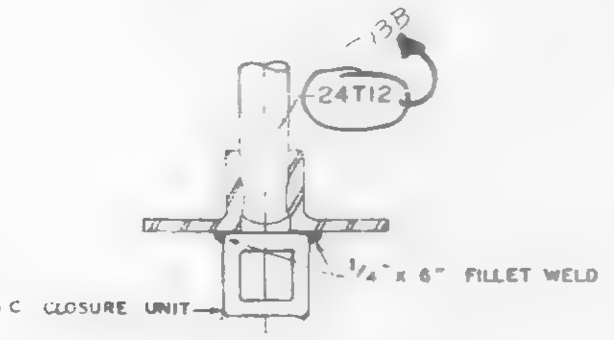


ELEVATION ... END

ALL PANEL POINTS RESISTANCE WELDED (x)
ALL WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE UNIT DETAIL

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.



SECTION A-A

ELEVATION

END VIEW

B.C. CLOSURE UNIT

SKILLING - HELLE CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
APPROVED
APPROVED AS NOTED
RESUBMIT
REJECTED
2 10 69

REF DWG
7-AB2-1 1-6-6
7-AB2-8 7-22-6
7-AB4-15.1 10-4-6
7-AB4-16 7-22-6
7-AB4-10 12-20-6
7-AB4-38 10-15-6

MATERIAL LIST FOR B.C. CLOSURE UNIT			
PCS	TYPE STEEL	SIZE	LENGTH
1	A242	1 1/4 x .B. WALL SQ TUBING	[illegible]

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T13B-1415	6	A242	1 1/2"x1 1/4"x.230"	14'-1 1/2"	7	A242	1 1/2"x1 1/4"x.230"	7'-10 7/8"	3	A242	.75	7'-8 1/4"	1 1/2 K @ 3'-4" = 5'-0"	–	–	–	–	–		

ES END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
	24T13B-1415	1'-7 5/8"	2	A242	.75	1'-11 3/4"	4	A242	.75	1	2'-5 3/4"

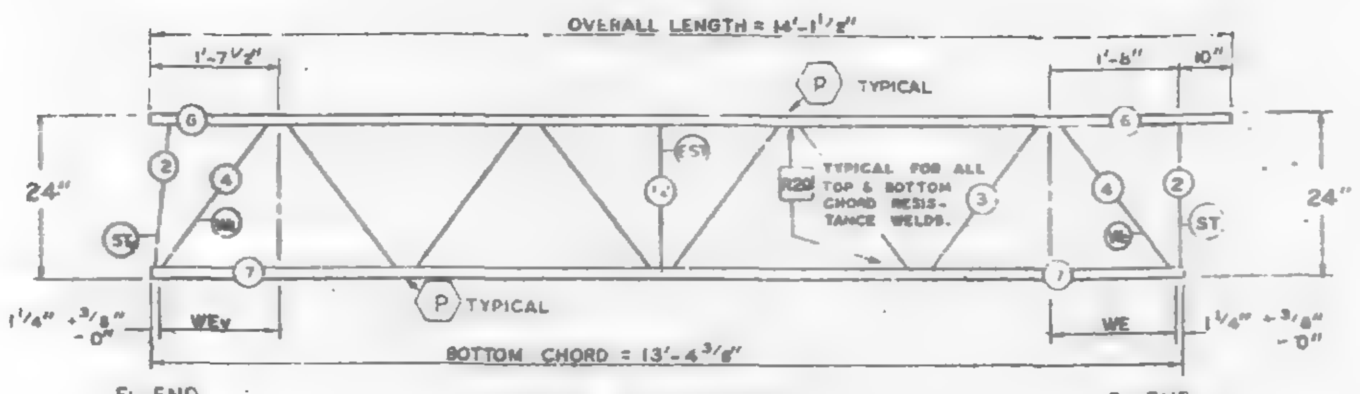
EL END	TRUSS DESIGNATION	BEARING ANGLES				EX$_L$	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK V7			
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	NO. REQ'D
	24T13B-1415	9	A242	1 1/2x1 1/4x.230	8'-8"	8'-7 1/2"	–	—	–	—	2	A242	.75	1'-11 3/4"	A242	.75	2 7/8"	10

NO	DATE	REVISION	BY

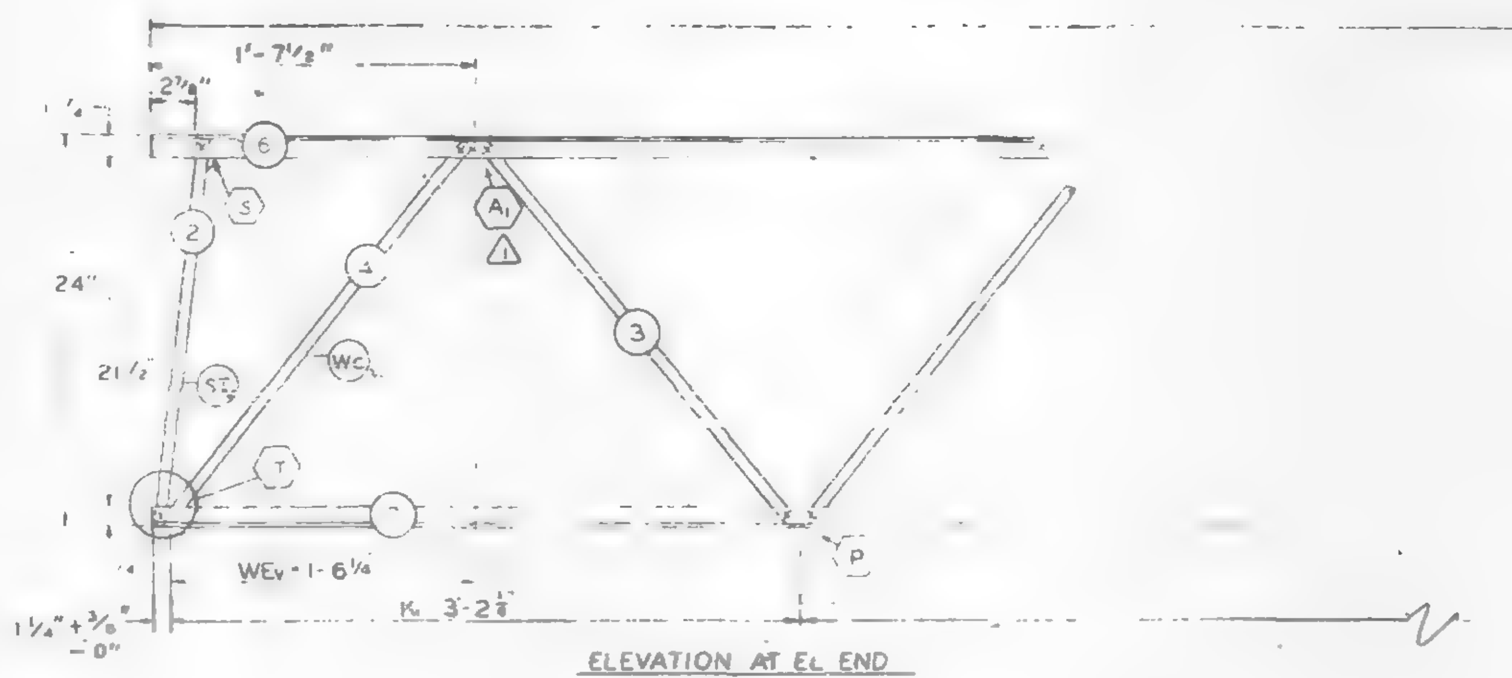
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13B x 14'-1 1/2" LONG
WORLD TRADE CENTER TOWERS A-B

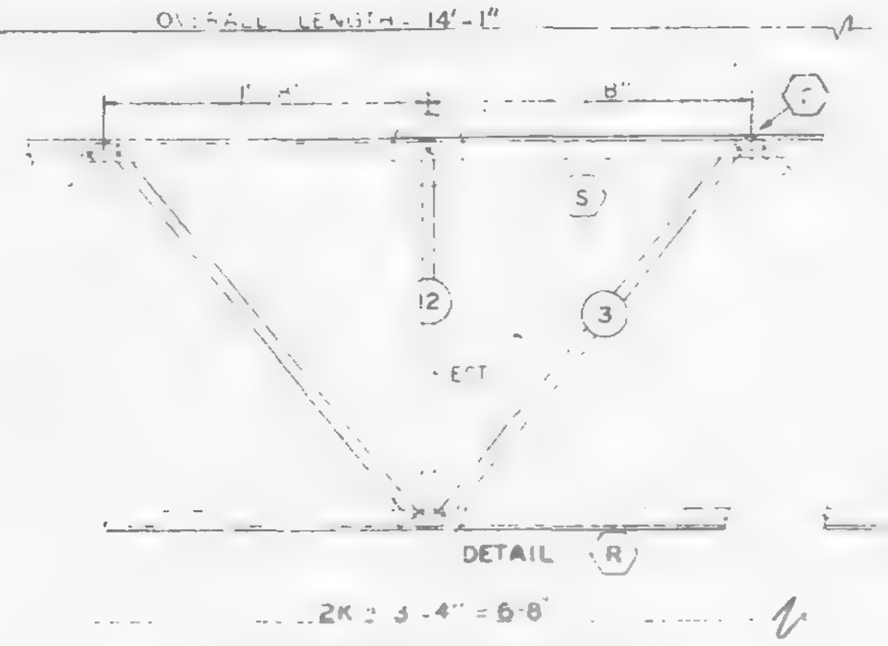
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-18
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DRAWN BY [illegible] DATE JAN 28 [illegible]
CHECKED BY T.R. CHURE DATE JAN 28, 1980
DETAILED BY A C WEBER
FABRICATION CONT. NO. W.T.C. 221
BT 213



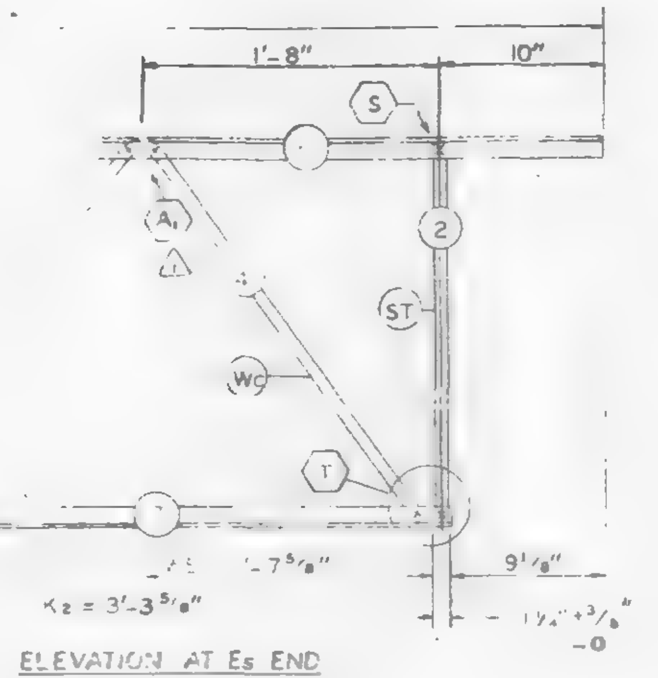
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIREMENT	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K₁"	3'-2½"	± 1/4"
PANEL "K₂"	3'-3⅝"	± 1/4"
OVERALL LENGTH	14'-1½"	± 3/8"
WEB DEPTH	23⅞"	± 1/4"

ALL PANEL POINTS RESISTANCE WELDED (x). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R29.

REF. DRWG.

7-AB2-1	1-8-68
7-AB2-8	7-22-68
7-AB4-15	10-4-68
7-AB4-16	7-22-68
7-AB4-28 & 41	7-22-68
7-AB4-38	10-15-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				NUMBER REQUIRED
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	[illegible]	MK	TYPE STEEL	DIA	LENGTH	
24T13C-1415	6	A242	1½x1¼x230	14'-1½"	7	A242	1½x1¼x230	13'-4⅜"	3	A242	.75	15'-4½"	3K@3'-4"=10'-0"	12	A242	.75	1'-10⅞"	1

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13C-1415	1'-7⅞"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5¼"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "STv" STRUT				END STIFFENER						WEB "Wcv"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK V5 TYPE STEEL	DIA	LENGTH	MK V6 TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T13C-1415	-	—	—	—	1-6¼"	-	—	-	—	2	A242	.75	1'-11½"	—	—	—	—	—	—	4	A242	1	.75	2'-5¼"

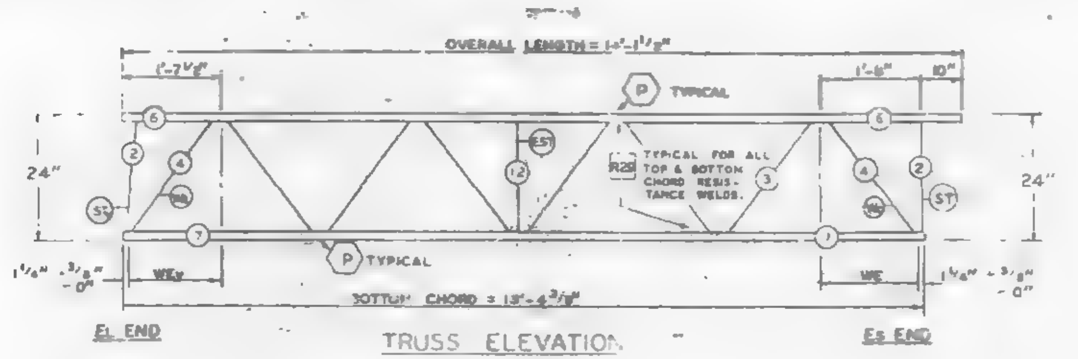
NO	DATE	REVISION	BY
1	2-25-69	WELD DETAIL A₁	R.J.P.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.
FOR
THE PORT OF NEW YORK AUTHORITY

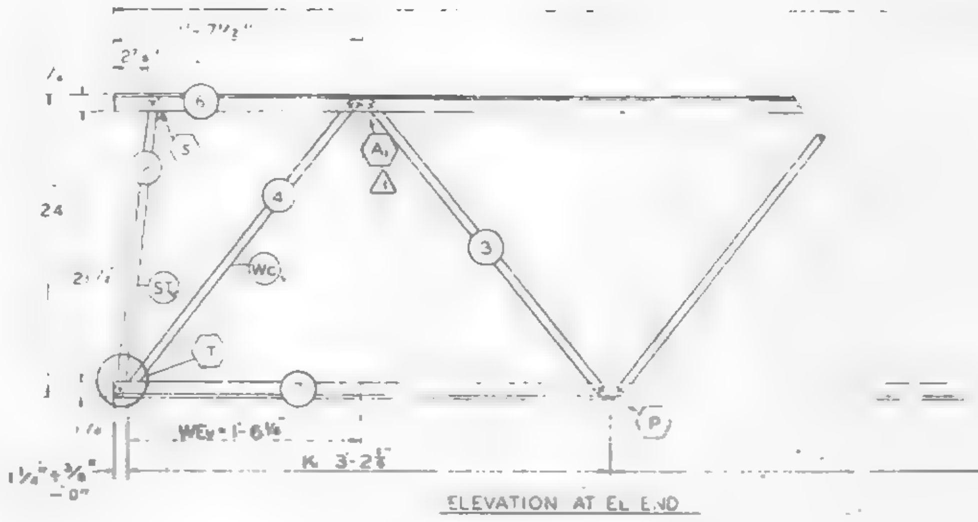
BRIDGING TRUSS 24T13C x 14'-1½" LONG
WORLD TRADE CENTER TOWERS A-B

LACLEDE STEEL COMPANY
AT MADISON, ILLINOIS

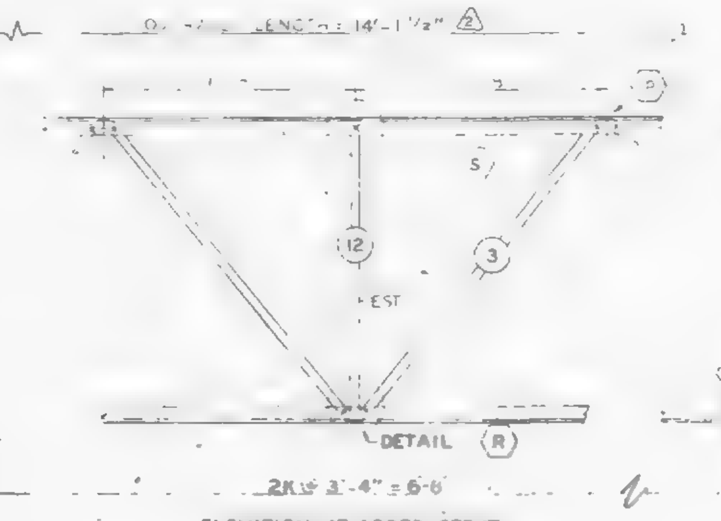
DESIGN DRAWING NO. 7-AB2-8
DRAWN BY [illegible] DATE JAN. 24, 1969
CHECKED BY [illegible] DATE JAN. 24, 1969
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT213C



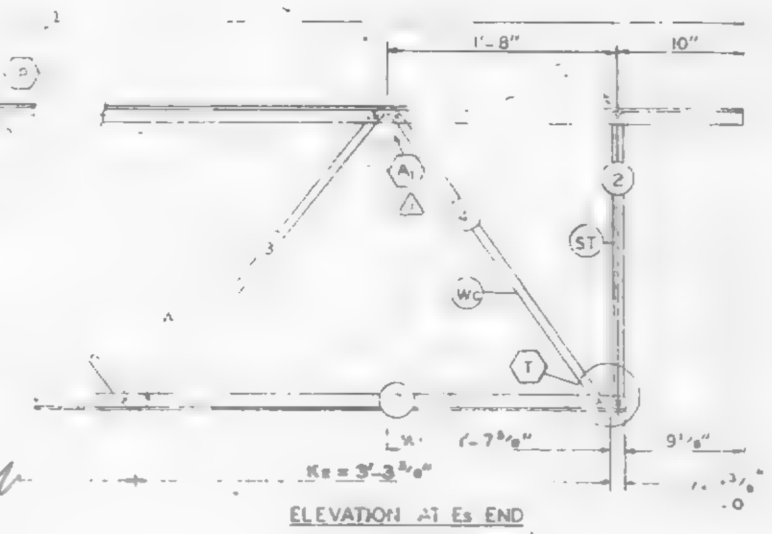
TRUSS ELEVATION



ELEVATION AT EL END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
PANEL "K2"	3'-3 5/8"	± 1/4"
OVERALL LENGTH	14'-1 1/2"	± 3/8"
WEB DEPTH	23 7/8"	± 1/4"

ALL PANEL POINTS RESISTANCE WELDED (X) ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R29].

TRUSS DESIGNATION	[illegible] TWO ANGLES				[illegible] TWO ANGLES				MAIN [illegible]						VERTICAL "EST" STRUT			NUMBER REQUIRED
24T13C-1415	6	A242	[illegible]	14'-1 1/2"	[illegible]	A242	[illegible]	13'-4 7/8"	3	A242	.75	15'-4'	3K = 3'-4" = 10'-0"	12	A242	.75	[illegible]	1

Es END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT MK	TYPE STEEL	DIA	LENGTH	WEB "Wc" MK	TYPE STEEL	PCS.	DIA	LENGTH
24T13C-1415	1'-7 5/8"	2	A242	.75	[illegible]	4	A242	1	.75	2'-5 1/4"

EL END TRUSS DESIGNATION	BEARING ANGLES MK	TYPE STEEL	CHORD SIZE	LENGTH	WEV	DIAGONAL "T" STRUT MK	TYPE STEEL	DIA	LENGTH	INCLINED "ST" STRUT MK	TYPE STEEL	DIA	LENGTH	END STIFFENER TYPE STEEL	MK V5 DIA	LENGTH	TYPE STEEL	MK V6 DIA	LENGTH	WEB "Wc" MK	TYPE STEEL	PCS.	DIA	LENGTH
24T13C-1415	—	—	—	—	1'-6 1/2"	—	—	—	—	2	A242	.75	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.75	2'-5 1/2"

REF. DRWG.
7-AB2-1 1-8-68
7-AB2-8 7-22-68
7-AB4-151 10-4-68
7-AB4-16 7-22-68
7-AB4-28 & 41 7-22-68
7-AB4-38 10-15-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

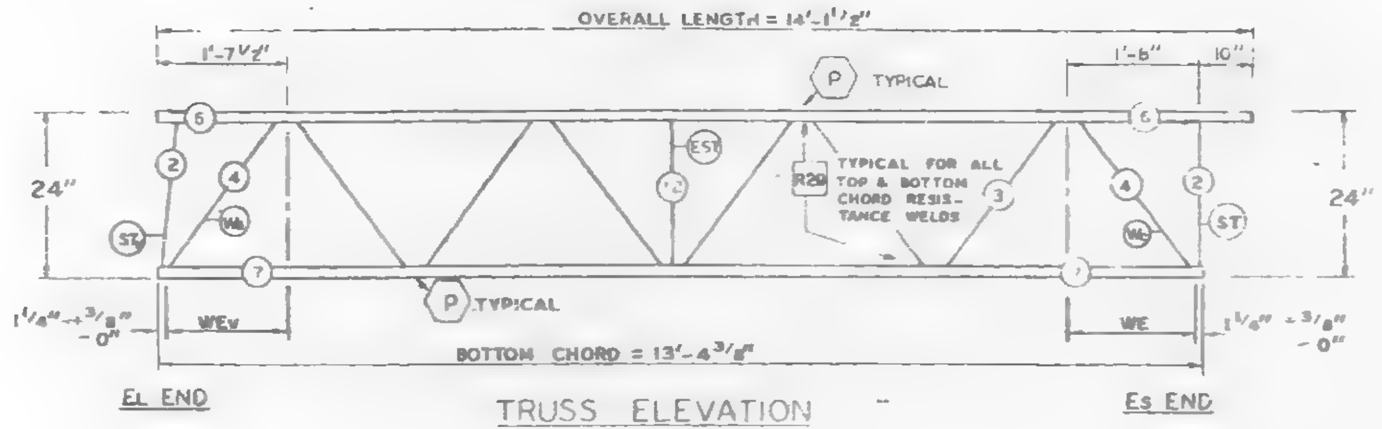
NO	DATE	REVISION	BY
2	3-18-69	AS NOTED	G.D.C.
1	2-25-69	WELD DETAIL A	R.J.P.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

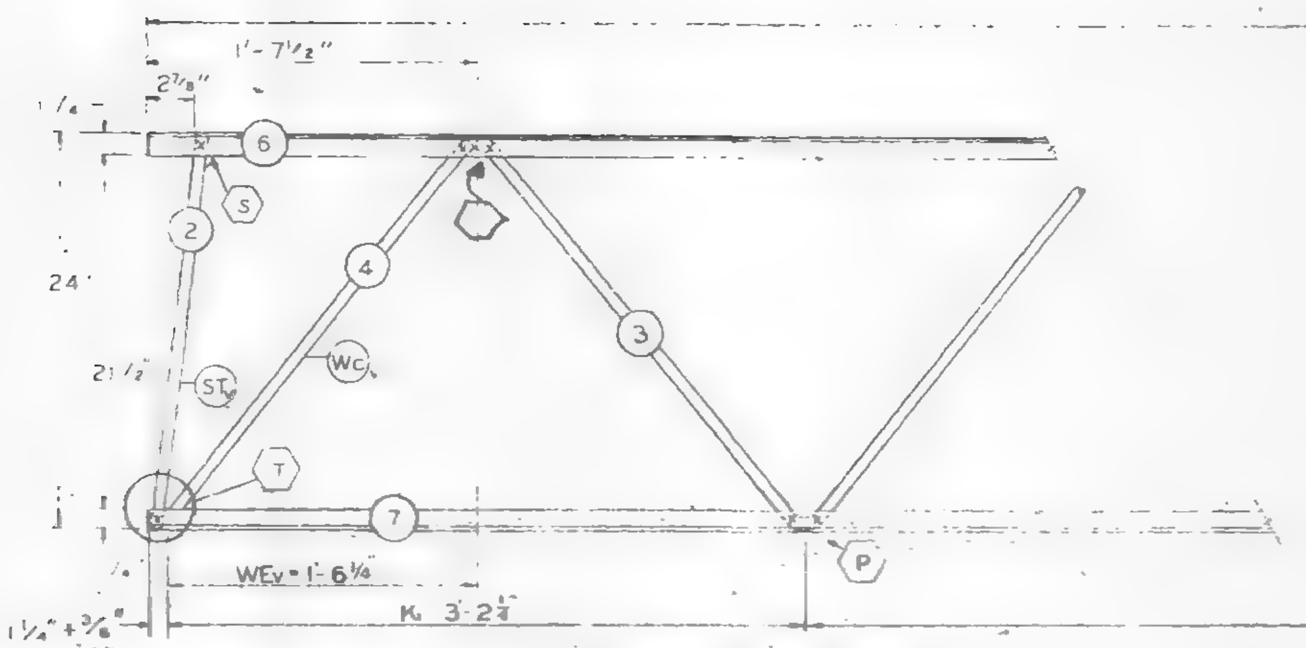
BRIDGING TRUSS 24T13C x 14'-1 1/2" LONG
WORLD TRADE CENTER TOWERS A-B

[illegible] BY LACLEDE STEEL COMPANY
[illegible] AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-8 PLATE
APPROVED FOR FABRICATION [illegible] DATE 3/24/69
DRAWN BY [illegible] DATE JAN. 24, 1969
CHECKED BY T.M. CHUBA DATE JAN. 24, 1969
IN CHARGE OF [illegible]
LACLEDE STEEL CO.
FABRICATION CONT. NO W.T.C. 221
SHEET NO BT213C

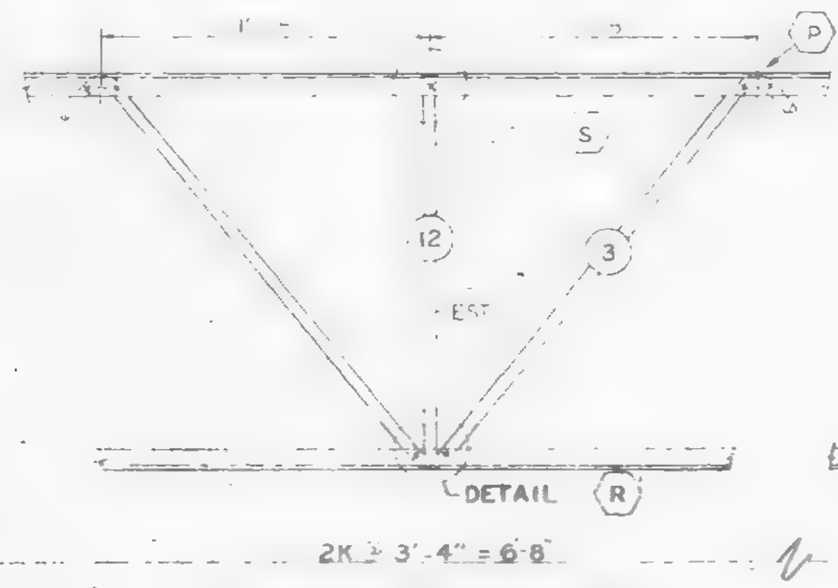
FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MID SPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3-2½"	± 1/4"
PANEL "K2"	3'-3⅝"	± 1/4"
OVERALL LENGTH	14'-1½"	± 3/8"
WEB DEPTH	23⅞"	± 1/4"



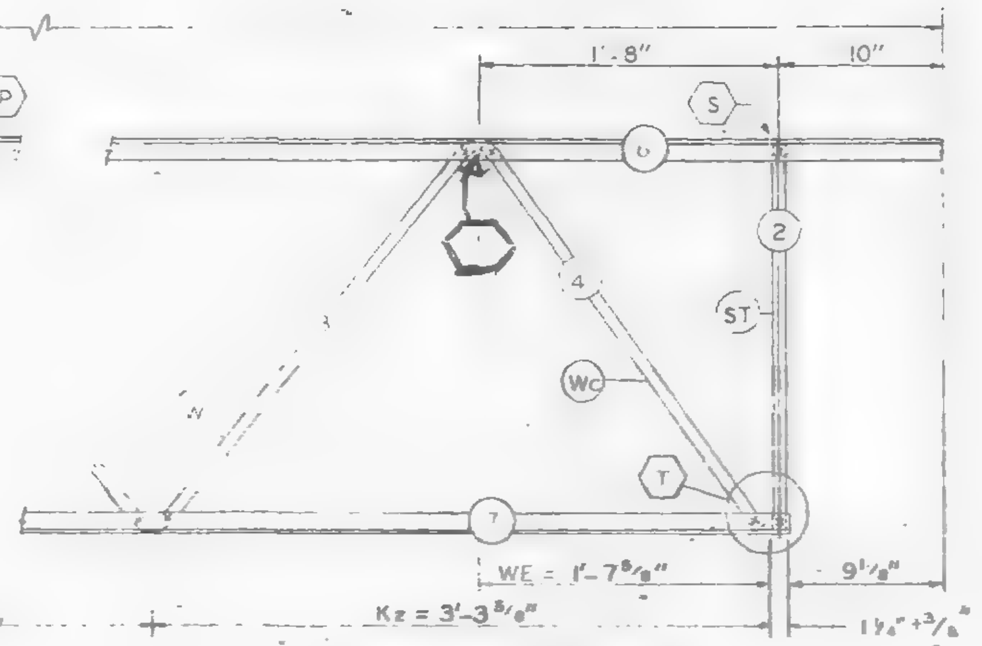
TRUSS ELEVATION



ELEVATION AT El END



ELEVATION AT ADDED STRUT



ELEVATION AT Es END

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON
Structural & Civil Engineers
APPROVED AS NOTED
10 69 SK

REF DRWG.

7-AB2-1	1-6-68
7-AB2-B	7-22-68
7-AB4-15	10-4-68
7-AB4-16	7-22-68
7-AB4-28 & 41	7-22-68
7-AB4-38	10-15-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED
24T13C-1415	6	A242	1½x1¼x230	14'-1½"	7	A242	1½x1¼x230	13'-4⅜"	3	A242	.75	15'-4½"	3K@3'-4"=10'-0"	12	A242	.75	1'-10⅞"	1

Es END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
24T13C-1415	1'-7⅝"	2	A242	.75	1'-11¾"	4	A242	1	.75	2'-5¼"

El END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				INCLINED "ST" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc"				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA.	LENGTH
24T13C-1415	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.75	1'-11⅛"	—	—	—	—	—	—	4	A242	1	.75	2'-5¼"

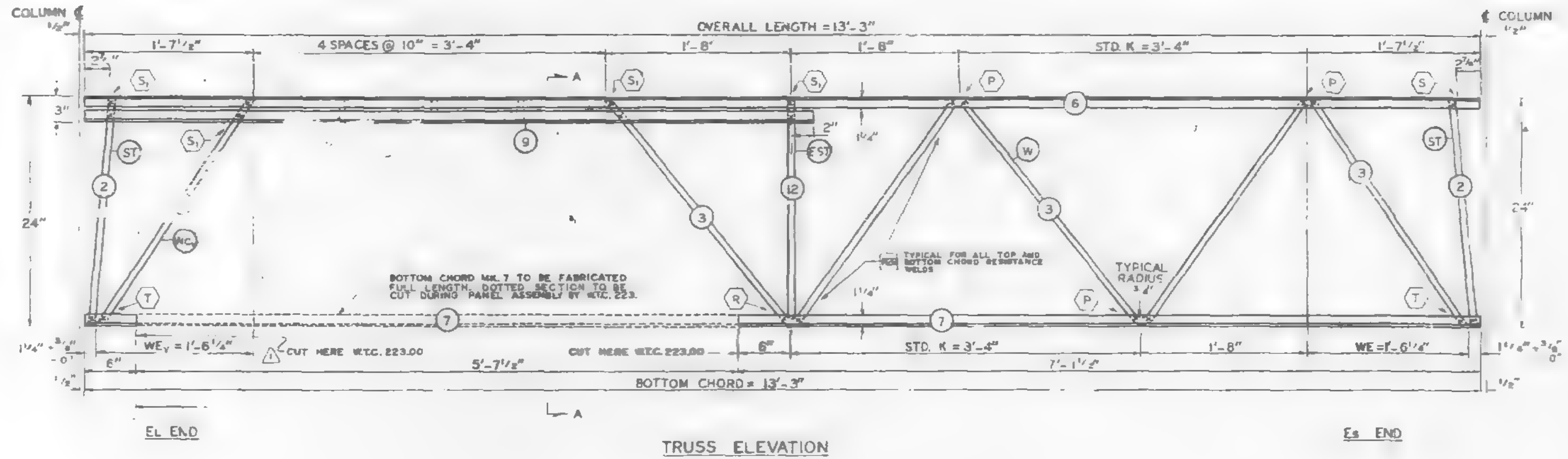
NO.	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13C x 14'-1½" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-B — PLATE
APPROVED FOR FABRICATION BY ... FOR PONYA — DATE
DRAWN BY ... DATE JAN. 24, 1969
APPROVED FOR FABRICATION BY ... FOR FABRICATOR — DATE
CHECKED BY T.M. CHURA DATE JAN. 24, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY C.A.C. WEBER
FABRICATION CONT NO W.T.C. 221
SHEET NO BT213C

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+3 / 8"
DESIGN DEPTH	24"	±1 / 4"
PANEL K'	3'-4"	±1 / 4"
WEB DEPTH	23 7/8"	±1 / 4"
OVERALL LENGTH	13'-3"	±3 / 8"



TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (▮▮▮▮).
LETTERS IN HEXAGON INDICATE WELD DETAIL ie. (P).
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291.
LETTERS & NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM ie. R29 .

SECTION A-A

REF. DWG.

7-A82-15	[illegible]
7-A82-1	10-4-[illegible]
7-A84-22	7-22-[illegible]
7-A84-28	7-22-68
7-A84-28.1	7-22-68
7-A84-17.4	10-15-68
SA-124	10-11-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB W					VERTICAL EST STRUT				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
24T13D-133	6	A242	1 1/4"x1 1/4"x.23"	13'-3"	7	A242	1 1/4"x1 1/4"x.23"	13'-3"	3	A242	.75	12'-8 [illegible]"	2 1/2 K = 3'-4" = 8'-4"	12	A242	.75	1	1'-10 [illegible]"

Es END	TRUSS DESIGNATION	INCLINED ST STRUT				WE
		MK.	TYPE STEEL	DIA.	LENGTH	
	24T13D-133	2	A242	.75	1'-11 3/4"	1'-6 1/4"

EL	TRUSS DESIGNATION	INCLINED ST STRUT				WE$_V$	WEB WC$_V$					BEARING ANGLES				END STIFFENER MK. 17			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	DIA.	PCS.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	TYPE STEEL	DIA.	LENGTH	PCS.
	24T13D-133	2	A242	.75	1'-11 3/4"	1'-6 1/4"	4	A242	.75	1	2'-5 1/4"	9	A242	1 1/4"x1 1/4"x.23"	6'-9 7/8"	A242	.75	2 7/8"	3

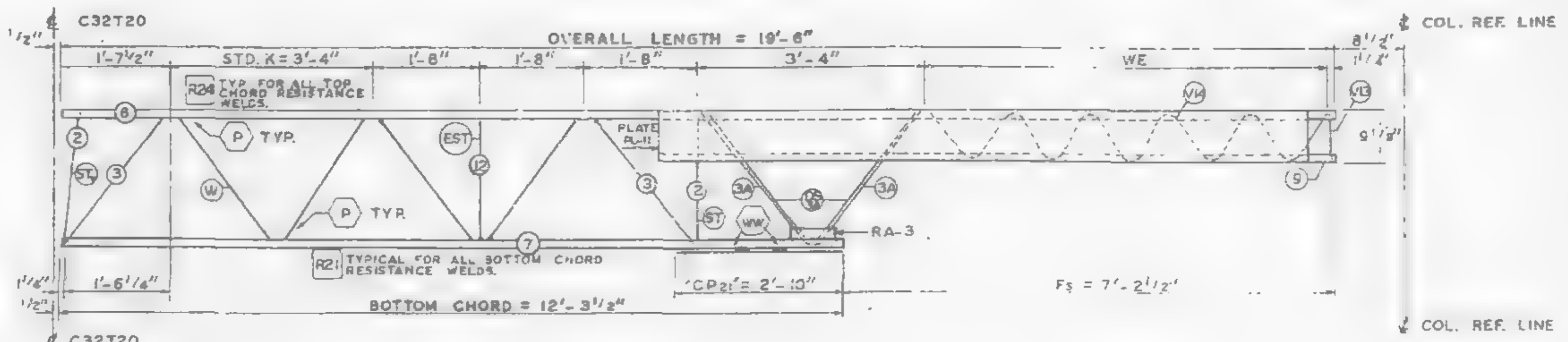
NO.	DATE	REVISION	BY
1	10-24-68	(NOTE) "CUT HERE" (EL END)	T.M.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

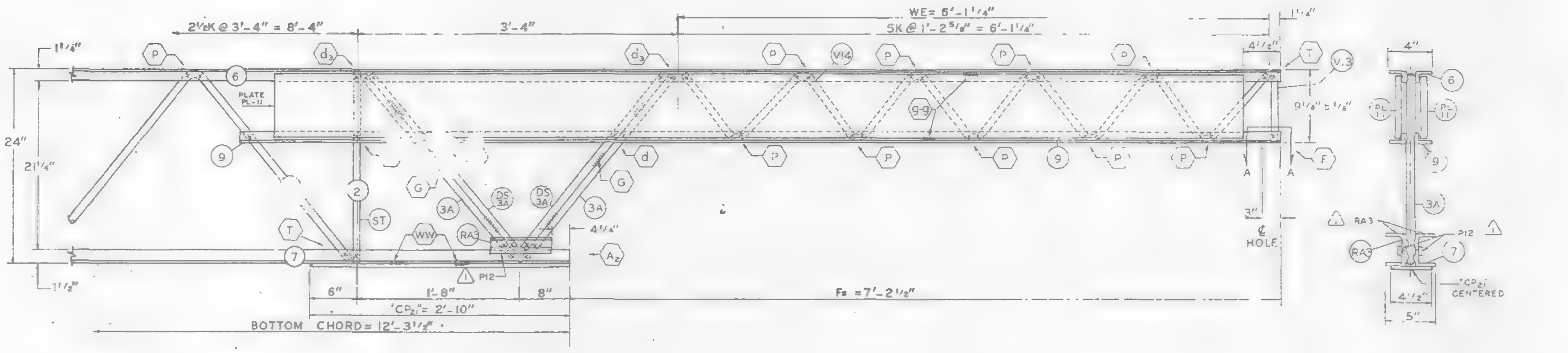
BRIDGING TRUSS 24T13D x 13'-3" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

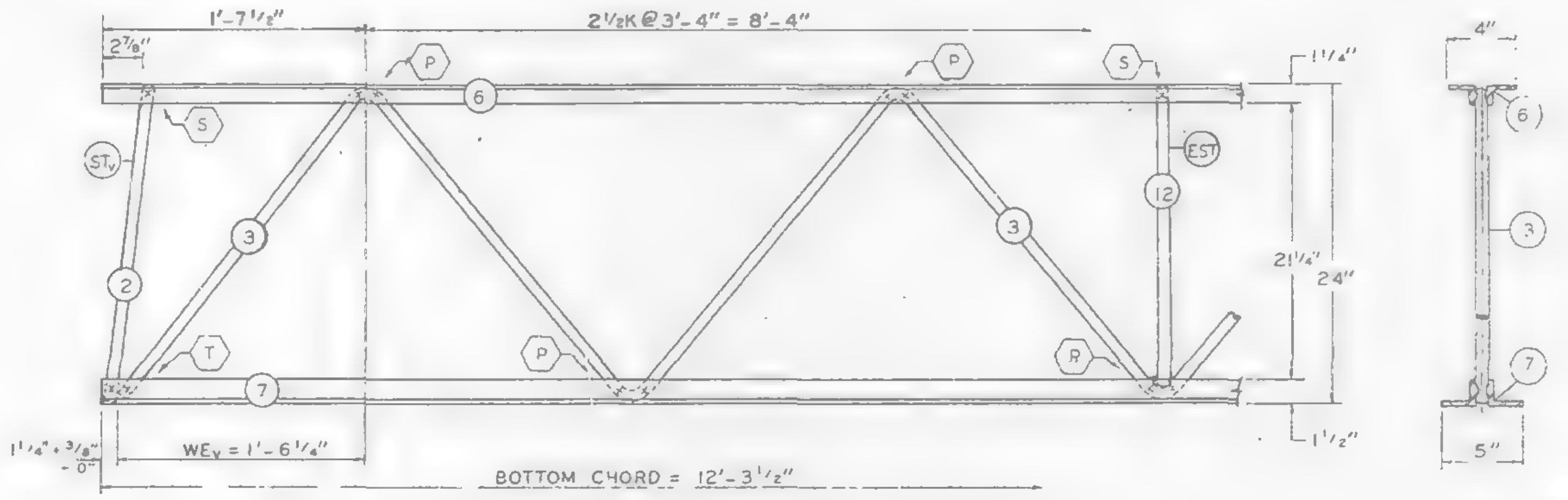
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A82-15	PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A.	DATE 10/30/68	DRAWN BY: g.d.c. DATE OCT 15, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE OCT. 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. BT-21[illegible]D



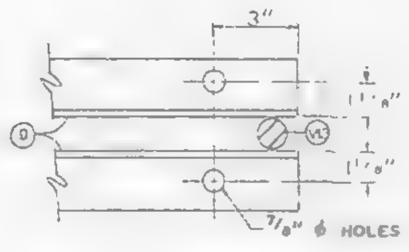
TRUSS ELEVATION



Es END (COLUMN)



EL END (CORE)



SECTION A-A

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
OVERALL LENGTH	19'-6"	± 3/8"
WEB DEPTH	23 7/8"	± 1/4"

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (IIIIIII).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R21].
LETTERS IN HEXAGONS INDICATE WELD DETAILS. ie., (P).
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, ST 293 & ST 294.
STIFFENER ℞ SHOWN ON SHEET ST 408.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283 & ST 284.

REF. DRWG.		
	7-AB2-14	10-4-68
	7-AB1-55	10-15-68
	7-AB4-54	10-4-68
	7-AB4-58	10-4-68
	SA-124	10-11-68

PAINT
LACLEDE ELECTROCOAT
RED. NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		REINFORCING ANGLES					SPECIAL PLATES				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	PCS.	LENGTH			MK.	PCS.	TYPE STEEL	ANGLE SIZE	LENGTH	MK.	PCS.	TYPE STEEL	SIZE	LENGTH
24T14A-196	6	A242	1 1/2"x1 1/4"x.275"	19'-6"	7	A242	2"x1 1/2"x.25"	12'-3 1/2"	3	A242	.98	15'-1 1/2"	3K @ 3'-4" = 10'-0"	12	A242	.98	1	1'-10 7/8"			RA3	2	A242	2"x1 1/2"x.25"	7 1/2"	P12	2	A36	1"x3/8"	7 1/2"
									3A	A242	.98	5'-1 1/2"	1K @ 3'-4" = 3'-4"																	

Es END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				BEARING ANGLES				WE	DOUBLE STRUT				CHORD PLATE				END STIFFENER MK. V13			END STIFFENER MK. V14			STIFFENER PLATE				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH (2 REQ'D)	MK.	TYPE STEEL	SIZE	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PLATE SIZE	LENGTH	PCS.
	24T14A-196	2	A242	.98	1'-11 3/4"	9	A242	1 1/2"x1 1/4"x.275"	10'-9 1/2"	6'-1 1/4"	DS 3A	A242	.98	2'-3 3/4"	CP 21	A36	4"x.39"	2'-10"	A242	.98	9"	A242	.98	9'-3"	PL 11	A36	8"x.75"	10'-0"	2

EL END	TRUSS DESIGNATION	INCLINED "STv" STRUT				WEv
		MK.	TYPE STEEL	DIA.	LENGTH	
	24T14A-196	2	A242	.98	1'-11 3/4"	1'-6 1/4"

NO.	DATE	REVISION	BY
1	12-26-68	AS NOTED	G.D.C.

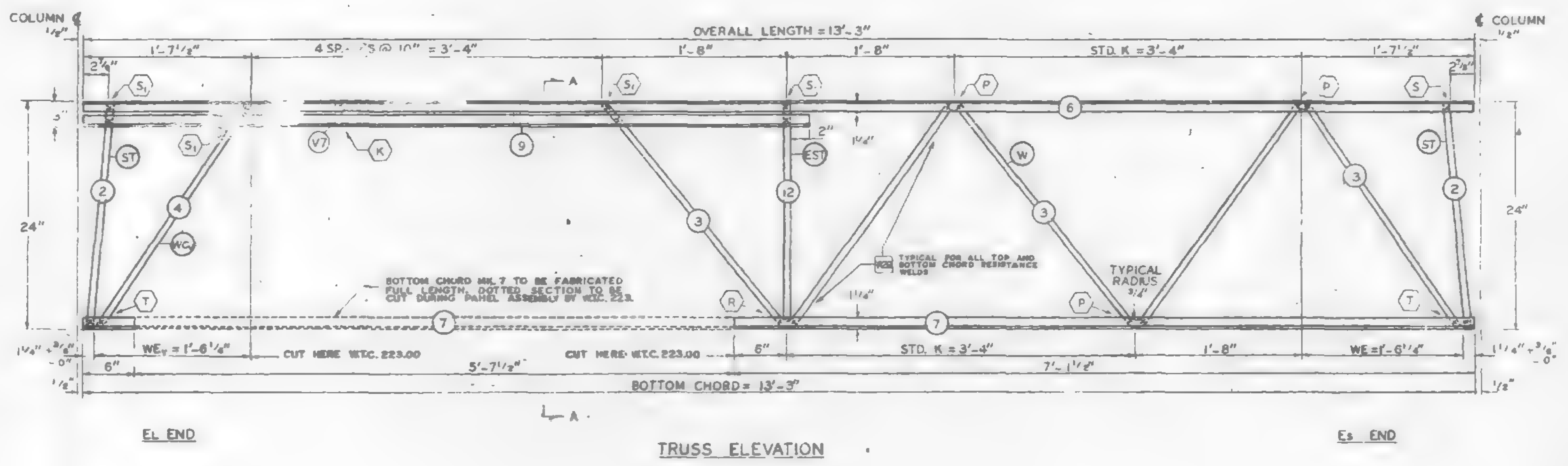
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14A x 19'-6" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A DATE 1/20/69
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
DETAILED BY: A CARL WEBER
DESIGN DRAWING NO.
DRAWN BY: gdc DATE OCT. 31, 1968
CHECKED BY: T.M.CHURA DATE OCT. 31, 1968
FABRICATION CONT. NO. W.T.C. 221
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO. BT 214 A

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+3/8"
DESIGN DEPTH	24"	±1/4"
PANEL "K"	3'-4"	±1/4"
WEB DEPTH	23 7/8"	±1/4"
OVERALL LENGTH	13'-3"	±3/8"

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (▓▓▓).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (P).
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291.
LETTERS & NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM. ie., [R29].



TRUSS ELEVATION

SECTION A-A

REF. DWG.

7-A82-15	8-1-68
7-A82-1	8-15-68
7-A84-22	7-22-68
7-A84-28	7-22-68
7-A84-28.1	7-22-68
7-A84-17.4	8-15-68
SA-124	8-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10C01

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
24T13D-133	6	A242	1 1/2"x1 1/4"x.23"	13'-3"	7	A242	1 1/2"x1 1/4"x.23"	13'-3"	3	A242	.75	12'-8 7/8"	2 1/2 K @ 3'-4" = 8'-4"	12	A242	.75	1	1'-10 7/8"

Es END	TRUSS DESIGNATION	INCLINED "ST" STRUT				WE
		MK.	TYPE STEEL	DIA.	LENGTH	
	24T13D-133	2	A242	.75	1'-11 3/4"	1'-6 1/4"

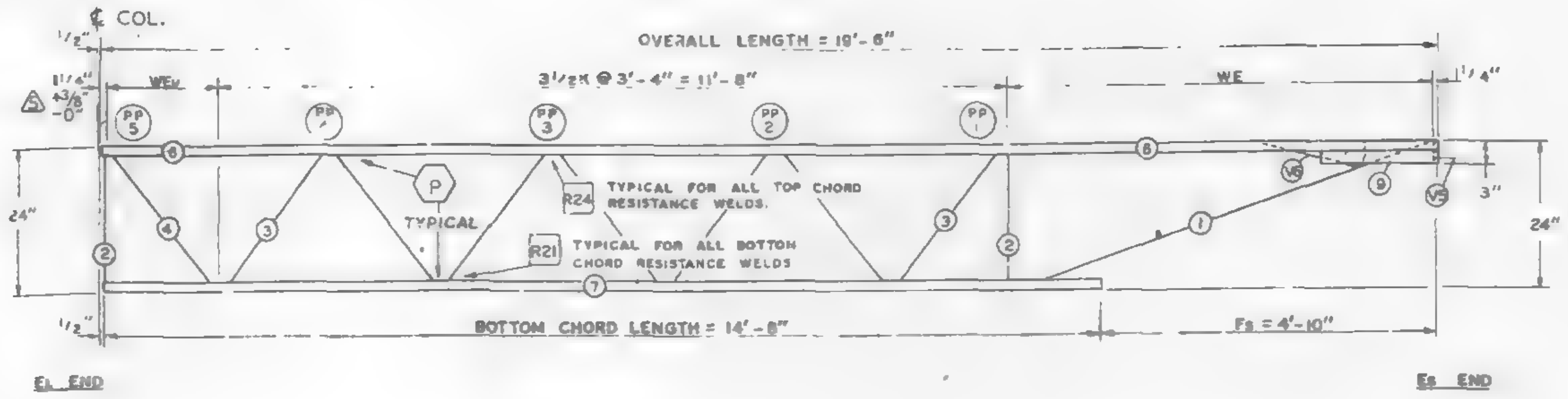
EL END	TRUSS DESIGNATION	INCLINED "ST" STRUT				WE_V	WEB "WC_V"					BEARING ANGLES				END STIFFENER MK. V7			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	DIA.	PCS	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	TYPE STEEL	DIA	LENGTH	PCS.
-	24T13D-133	2	A242	.75	1'-11 3/4"	1'-6 1/4"	4	A242	.75	1	2'-5 1/4"	9	A242	1 1/2"x1 1/4"x.23"	6'-9 7/8"	A242	.75	2 7/8"	3

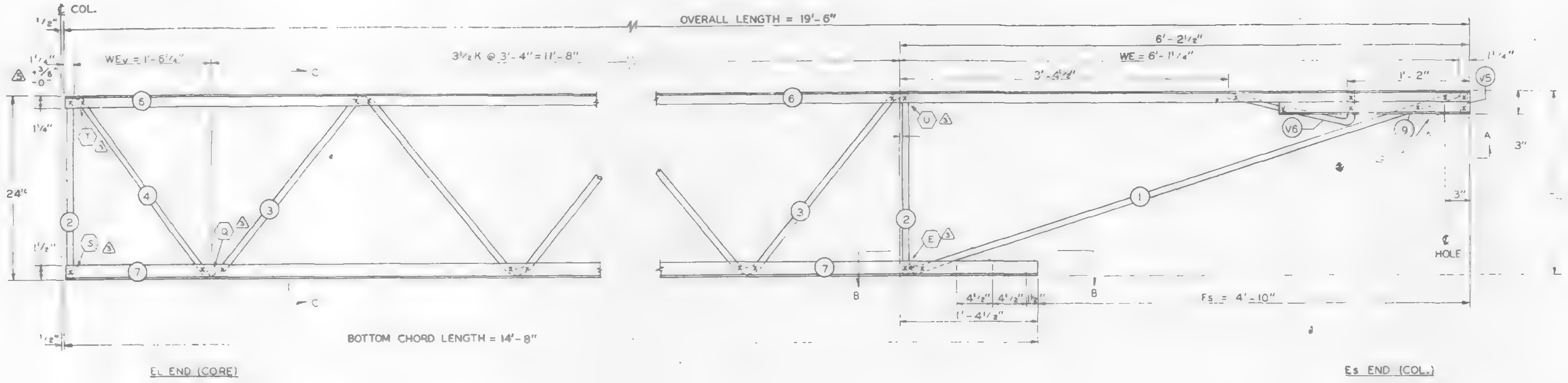
NO.	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T13D x 13'-3" LONG
WORLD TRADE CENTER TOWERS A & B

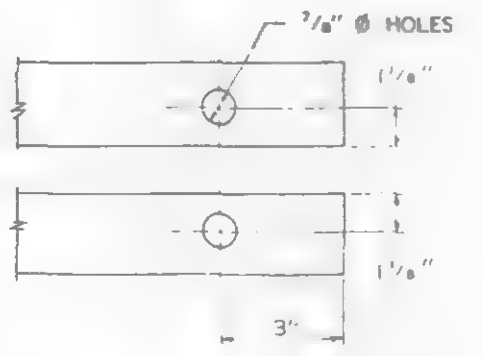
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A82-15
PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White — DATE 10/23/68
DRAWN BY gdc — DATE OCT. 15, 1968
APPROVED FOR FABRICATION BY _____ FOR FABRICATOR — DATE
CHECKED BY T.M. CHURA — DATE OCT. 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT 213 D



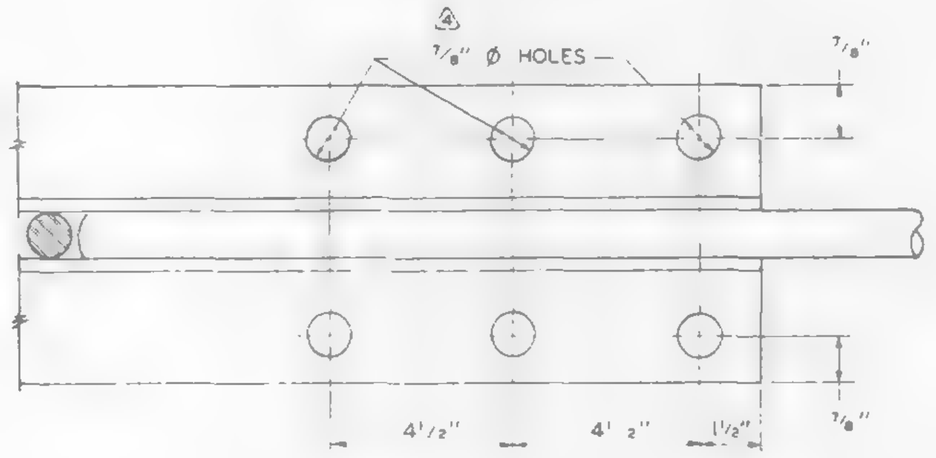


FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	—	—
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-6"	± 3/8"

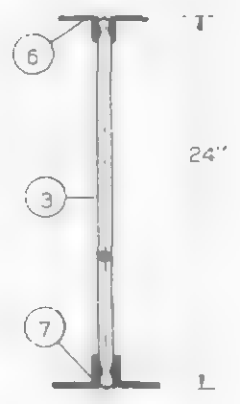
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.
SEE SHEET ST296 FOR V5 & V6 DETAILS.



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-AB2-[illegible]	4-1-68
7-AB2-9	4-1-68
7-AB4-5,1	1-3-68
7-AB4-16 & 19	1-3-68
7-AB4-28 & 41	1-3-68
7-AB4-8 & 38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO. OF K			NO	DIA.
24T14 -196	6	A242	1½" x 1¼" x .275"	19'-6"	7	A242	2" x 1½" x .25"	14'-8"	3	A242	.98	17'-1¼"	3½K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS1"				END STIFFENER MK. V5			END STIFFENER MK. V6			BEARING ANGLES			
			MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14 -196	6'-1¼"	2	A242	.98	1'-11¾"	1	A242	.98	6"-2⅞"	—	—	—	—	A242	.98	2⅞"	A242	.98	1'-11¼"	9	A242	2" x 1½" x .25	2'-3"

EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEv	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14 -196	2	A242	.98	1'-11¾"	1'-6¼"	4	A242	1	.98	2'-5½"

NO.	DATE	REVISION	BY
6	6-27-69	TOLERANCES	G.D.C.
5	9-6-68	END DIST. (2)	T.M.G.
4	7-17-68	HOLE SIZE - SECTION B-B	T.M.C.
3	7-8-68	AS NOTED	T.M.C.
2	7-3-68	MAIN WEB, WT	T.M.C.
1	6-26-68	GENERAL	T.M.C.

FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB2-9 PLATE

APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A DATE 7/2/69

DRAWN BY: [illegible] DATE APR. 20, 1968

APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE

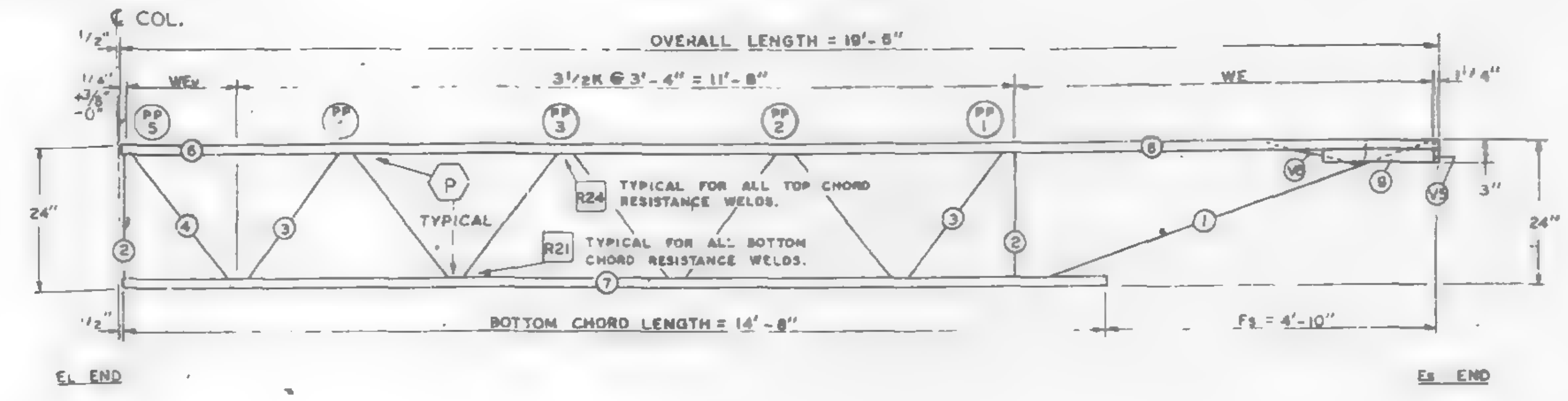
CHECKED BY: T.M. CHURA DATE APR. 20, 1968

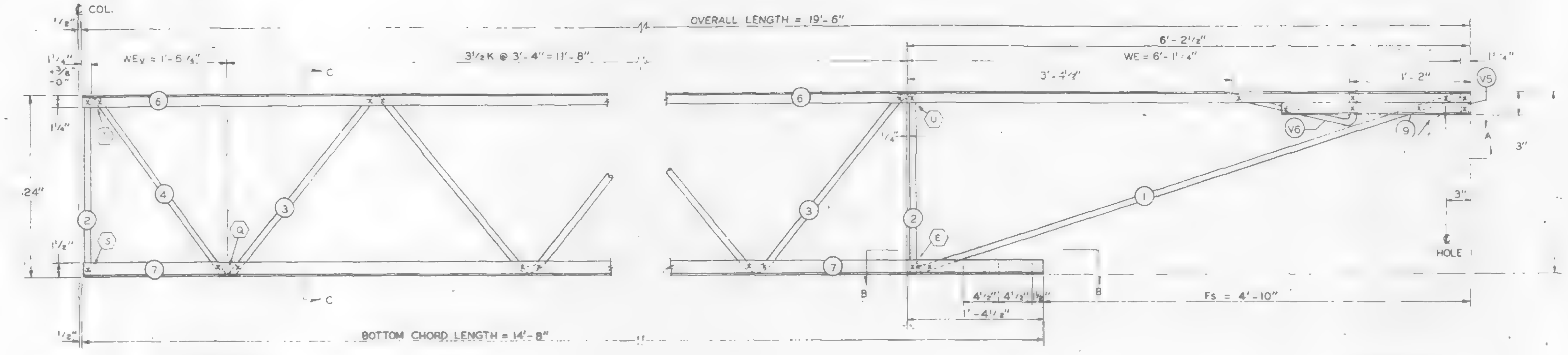
IN CHARGE OF PROD. DEV.

DETAILED BY A.C. WEBER

FABRICATION CONT. NO. WTC 221

SHEET NO. BT 214



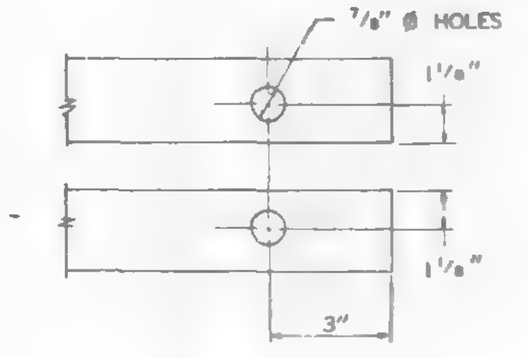


EL END (CORE)

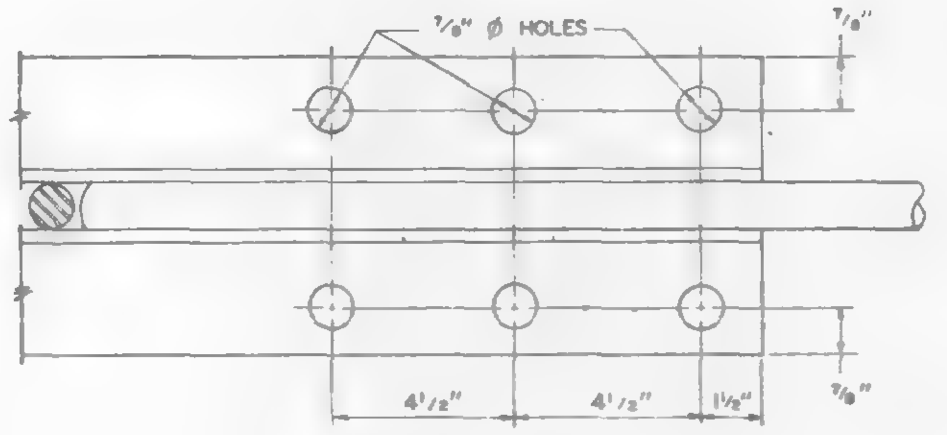
Es END (COL.)

ALL PANEL POINTS RESISTANCE WELDED (x). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.
SEE SHEET ST296 FOR V5 & V6 DETAILS.

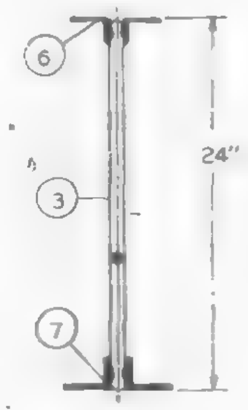
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	——	——
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-6"	± 3/8"



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-AB2-1	1-6-69
7-AB2-9	1-6-69
7-AB4-15.1	10-4-68
7-AB4-18	7-22-68
7-AB4-28	7-22-68
7-AB4-18	1-6-69

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO.	DIA.
24T14B-196	6	A242	$1\frac{1}{2}$" x $1\frac{1}{4}$" x .275"	19'-6"	7	A242	2" x $1\frac{1}{2}$" x .25"	14'-8"	3	A242	.98	17'-$11\frac{1}{4}$"	$3\frac{1}{2}$K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS1"				END STIFFENER MK. V5			END STIFFENER MK. V6			BEARING ANGLES			
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14B-196	6'-$1\frac{1}{4}$"	2	A242	.98	1'-$11\frac{3}{4}$"	1	A242	98	6"-$2\frac{7}{8}$"	—	——	—	——	A242	.98	$2\frac{7}{8}$"	A242	.98	1'-$11\frac{1}{4}$"	9	A242	2" x $1\frac{1}{2}$" x .25	2'-3"

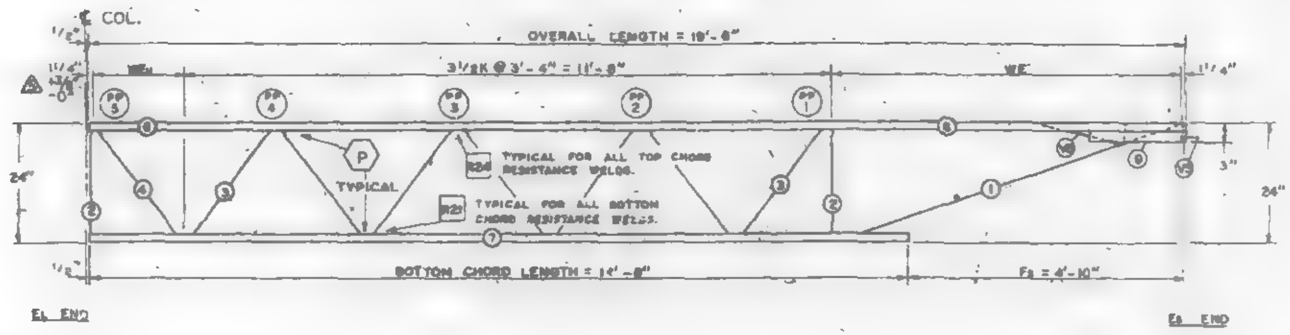
EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEV	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14B-196	2	A242	.98	1'-$11\frac{3}{4}$"	1'-$6\frac{1}{4}$"	4	A242	1	.98	2'-$5\frac{1}{2}$"

NO.	DATE	REVISION	BY
1	6-27-69	TOLERANCES	GDC

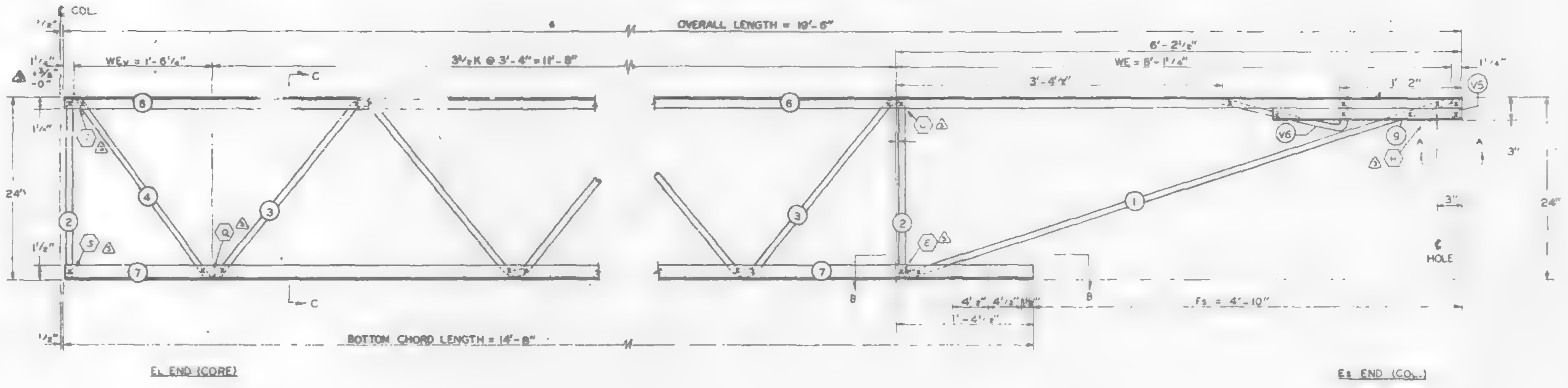
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14B x 19'-6" LONG

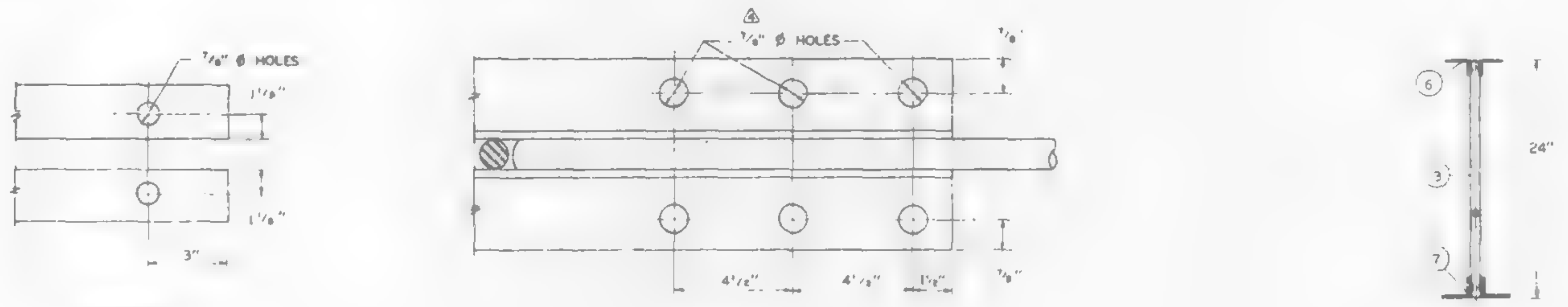
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-9 PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE 7/2/69
DRAWN BY: DATE JAN. 20, 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE JAN. 20, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT 214B



FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K1"	——	——
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19'-6"	+ 3/8"



ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▥).
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R2].
SEE SHEET ST296 FOR V5 & V6 DETAILS.



SECTION A-A

SECTION B-B

SECTION C-C

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-9	4-1-68
7-AB4-15J	1-3-68
7-AB4-18&19	1-3-68
7-AB4-28&41	1-3-68
7-AB4-18&38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K			NO	DIA
24T14 -196	6	A242	1¼" x 1¼" x .275	19'-6"	7	A242	2" x 1½" x .25	14'-8"	3	A242	.98	17'-1¼"	3½K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS"				END STIFFENER MK V5			END STIFFENER MK V6			BEARING ANGLES			
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH
	24T14 -196	8'-1¼"	2	A242	.98	1'-11¾"	1	A242	.98	6"-2⅞"	—	——	—	——	A242	.98	2⅞"	A242	.98	1'-11¼"	9	A242	2" x 1½" x .25	2'-3"

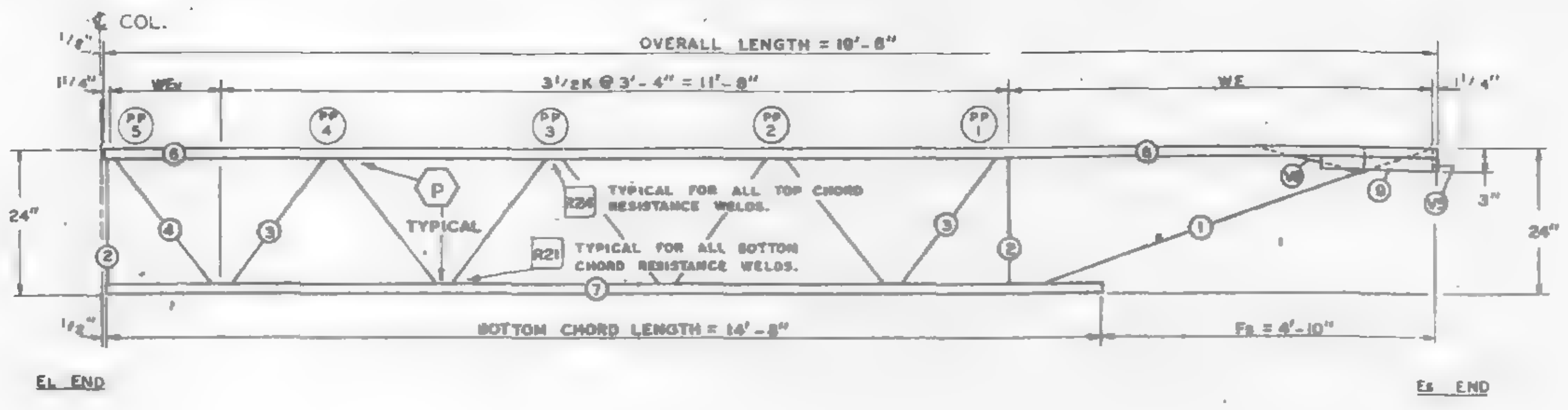
EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEV	WEB "W7"				
		MK	TYPE STEEL	DIA	LENGTH		MK	TYPE STEEL	PCS	DIA	LENGTH
	24T14 -196	2	A242	.98	1'-11¾"	1'-8¼"	4	A242	1	.98	2'-5¼"

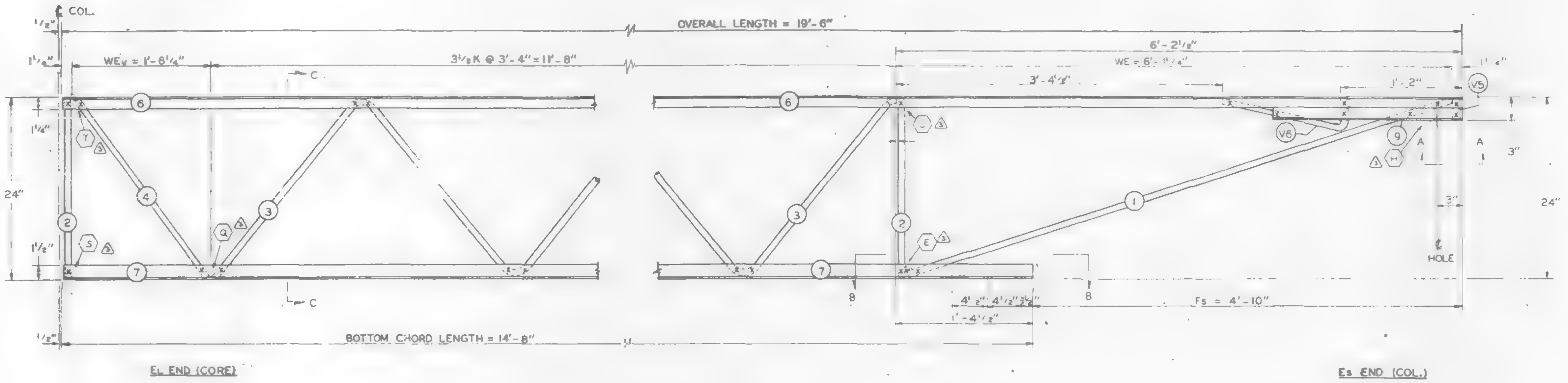
NO.	DATE	REVISION	BY
5	9-6-68	END DIST. (2)	TMC
4	7-17-68	HOLE SIZE - SECTION B-B	TMC
3	7-8-68	AS NOTED	TMC
2	7-3-68	MAIN WEB, W7	TMC
1	6-28-68	GENERAL	TMC

FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

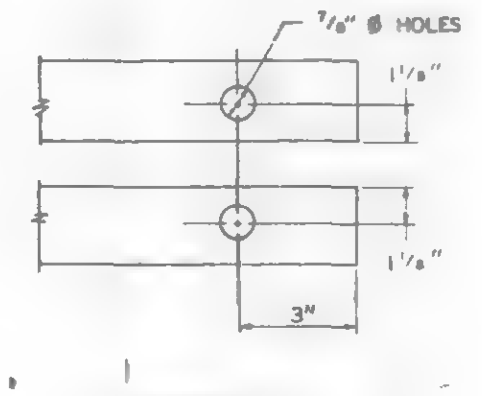
FABRICATED BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-9 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE 9/10/68
DRAWN BY DATE APR 20, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHUBA DATE APR 20, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT 214



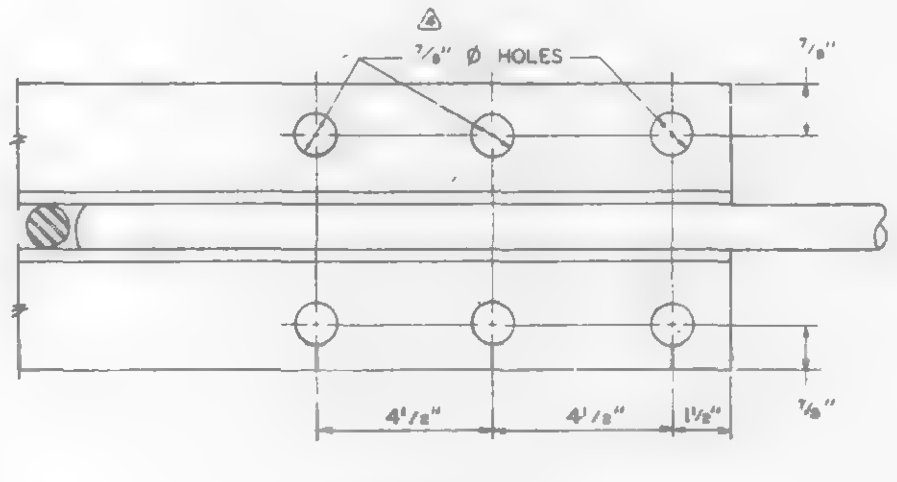


ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R21].
SEE SHEET ST296 FOR V5 & V6 DETAILS.

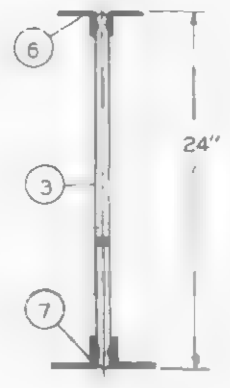
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K1"	—	—
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19'-6"	+ 3/8"



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-A82-1	4-1-68
7-A82-9	4-1-68
7-A84-15.1	1-3-68
7-A84-18 & 19	1-3-68
7-A84-28 & 41	1-3-68
7-A84-18 & 38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO.	DIA.
24T14 -196	6	A242	1 1/2" x 1 1/4" x .275"	19'-8"	7	A242	2" x 1 1/2" x .25"	14'-8"	3	A242	.98	17'-11 1/4"	3 1/2 K @ 3'-4" = 11'-8"			—	—

Fs	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS."				END STIFFENER MK V5			END STIFFENER MK. V6			BEARING ANGLES			
	—		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD	LENGTH
	24T14 -196	6'-1 1/4"	2	A242	.98	1'-11 3/4"	1	A242	.98	6"-2 7/8"	—	—	—	—	A242	.98	2 7/8"	A242	.98	1'-11 1/4"	9	A242	2" x 1 1/2" x .25	2'-3"

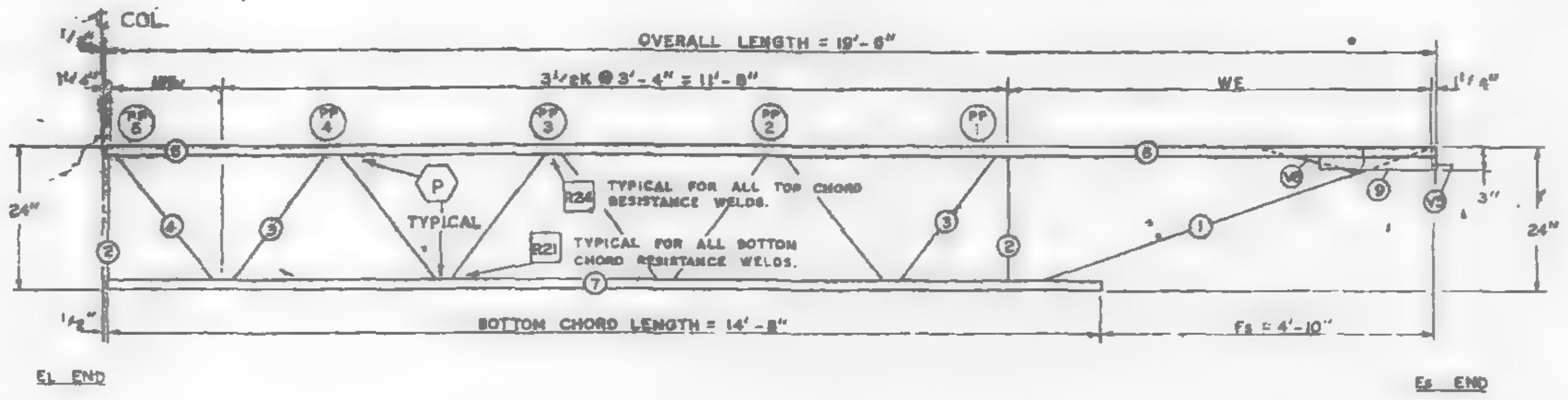
EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEv	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14 -196	2	A242	.98	1'-11 3/4"	1'-6 1/4"	4	A242	1	.98	2'-5 1/2"

NO.	DATE	REVISION	BY
4	7-17-68	HOLE SIZE - SECTION B-B	T.M.C.
3	7-8-68	AS NOTED	T.M.C.
2	7-3-68	MAIN WEB, WT	T.M.C.
1	6-26-68	GENERAL	T.M.C.

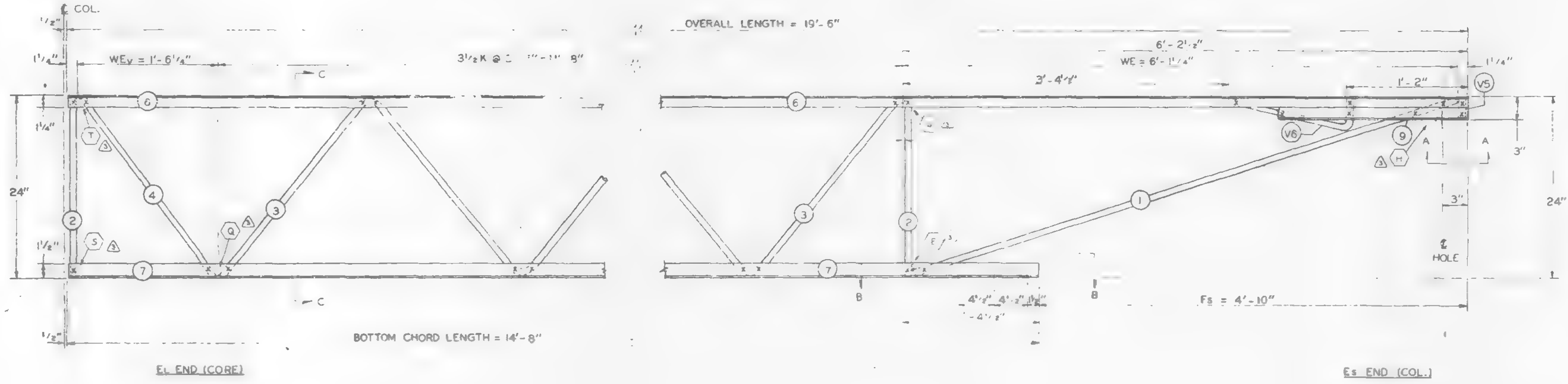
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

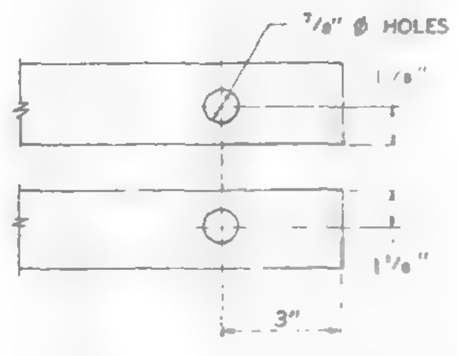
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A82-9 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 7/24/68
DRAWN BY: DATE APR. 20, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE APR. 20, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT 214



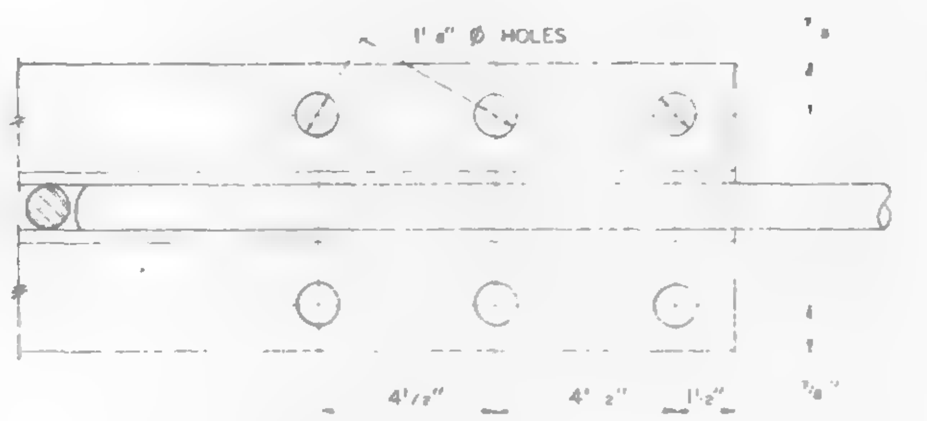
FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K₁"	—	—
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19'-6"	+ 3/8"



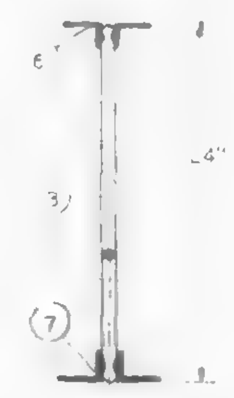
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.
SEE SHEET ST296 FOR V5 & V6 DETAILS.



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-9	4-1-68
7-AB4-15,1	1-3-68
7-AB4-18 & 19	1-3-68
7-AB4-28 & 41	1-3-68
7-AB4-18 & 38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO.	DIA.
24T14 -196	6	A242	1½" x 1¼" x .275"	19'-6"	7	A242	2" x 1½" x .25"	14'-8"	3	A242	.98	17'-11¼"	3½K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS₁"				END STIFFENER MK. V5			END STIFFENER MK. V6			BEARING ANGLES			
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14 -196	6'-1¼"	2	A242	.98	1'-11¾"	1	A242	.98	6'-2⅞"	—	—	—	—	A242	.98	2⅞"	A242	.98	1'-11¼"	9	A242	2" x 1½" x .25	2'-3"

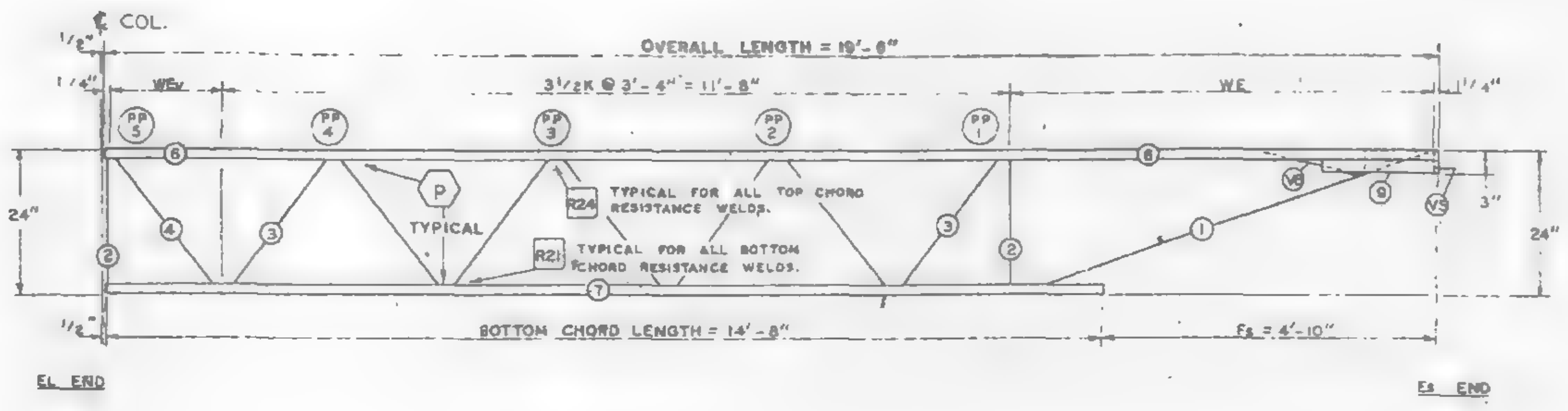
EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEV	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14 -196	2	A242	.98	1'-11¾"	1'-6¼"	4	A242	1	.98	2'-5½"

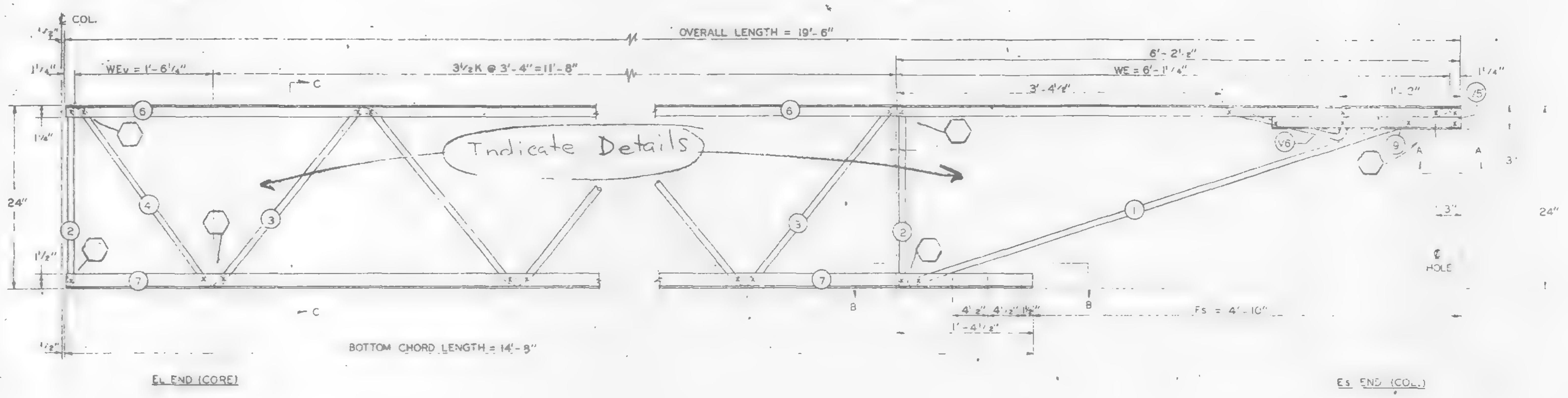
NO.	DATE	REVISION	BY
3	7-8-68	AS NOTED	T.M.C.
2	7-3-68	MAIN WEB, WT	T.M.C.
1	6-26-68	GENERAL	T.M.C.

FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

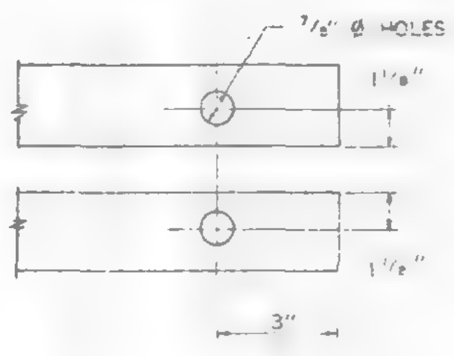
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN. DRAWING NO. 7-AB2-9 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A DATE 7/9/68
DRAWN BY: DATE APR. 23, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE APR. 20, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT 214



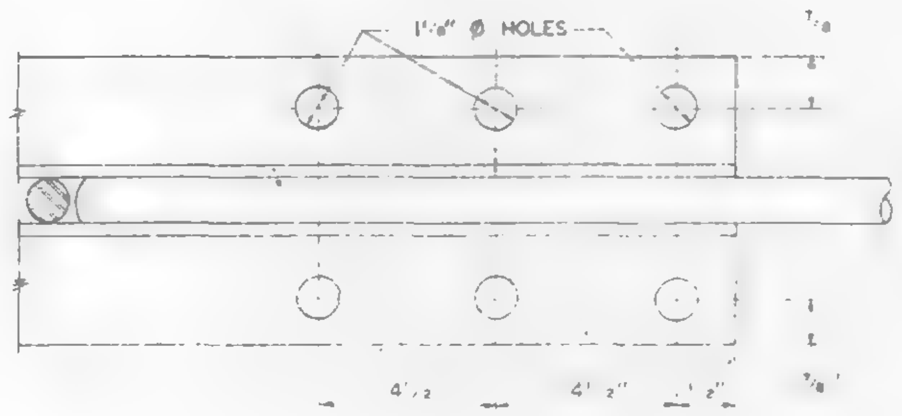


ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie.. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie.. [R2I].
SEE SHEET ST296 FOR V5 & V6 DETAILS.

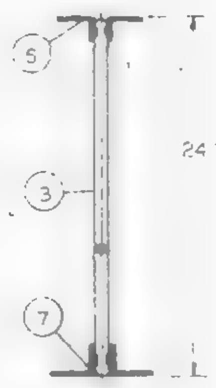
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K1"	—	—
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19'-6"	+ 3/8"



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-A82-1	4-1-68
7-A82-9	4-1-68
7-A84-15,1	1-3-68
7-A84-16 & 19	1-3-68
7-A84-28 & 41	1-3-68
7-A84-18 & 38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO.	DIA.
24T14 -196	6	A242	1 1/2" x 1 1/4" x .275	19'-6"	7	A242	2" x 1 1/2" x .25	14'-8"	3	A242	.98	17'-10 13/16"	3 1/2K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS1"				END STIFFENER MK. V5			END STIFFENER MK. V6			BEARING ANGLES			
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14 -196	6'-1 1/4"	2	A242	.98	1'-11 3/4"	1	A242	.98	6'-2 7/8"	—	—	—	—	A242	.98	2 7/8"	A242	.98	1'-11 1/4"	9	A242	2" x 1 1/2" x .25	2'-3"

EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEv	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14 -196	2	A242	.98	1'-11 3/4"	1'-6 1/4"	4	A242	1	.98	2'-5"

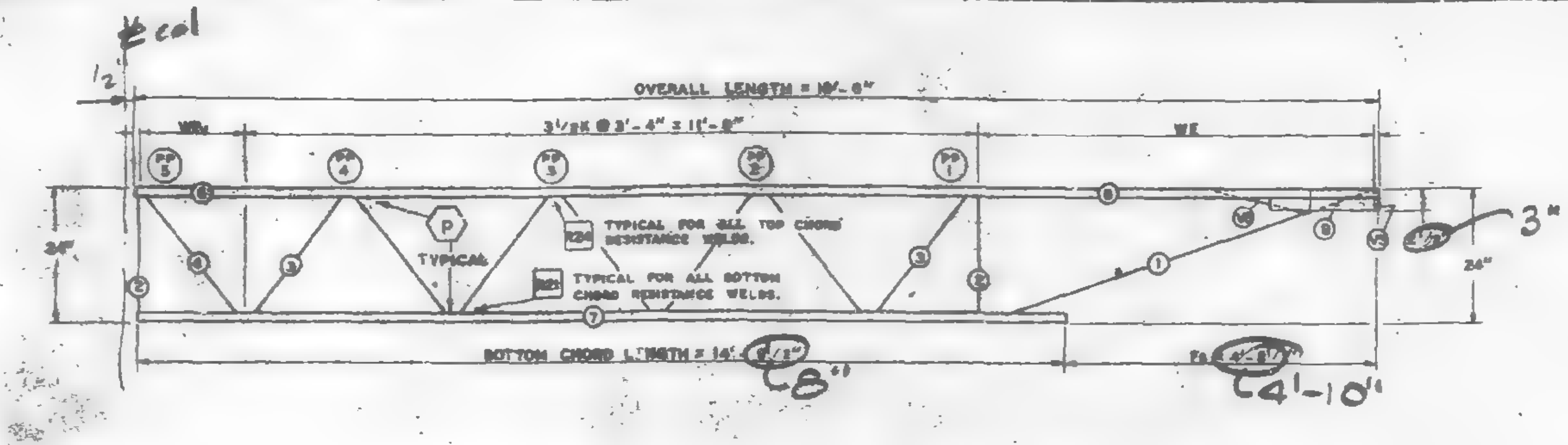
7/5/68 SK

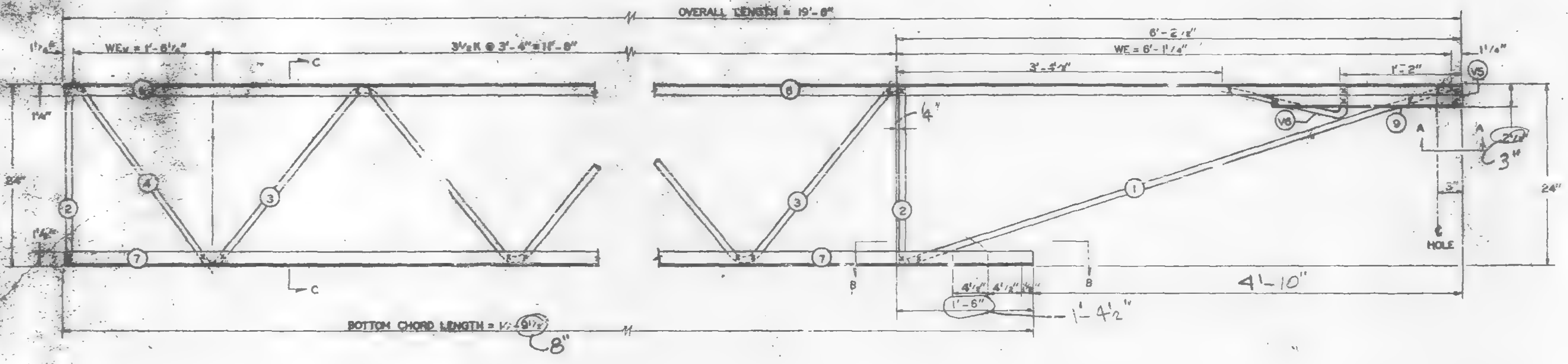
NO.	DATE	REVISION	BY
1	6-28-68	GENERAL	T.M.C.

FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

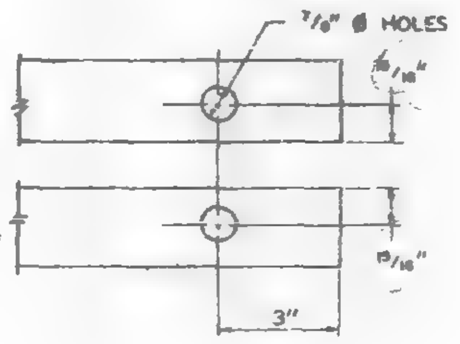
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A82-9 PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
DRAWN BY: DATE APR. 20, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE APR. 20, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT 214



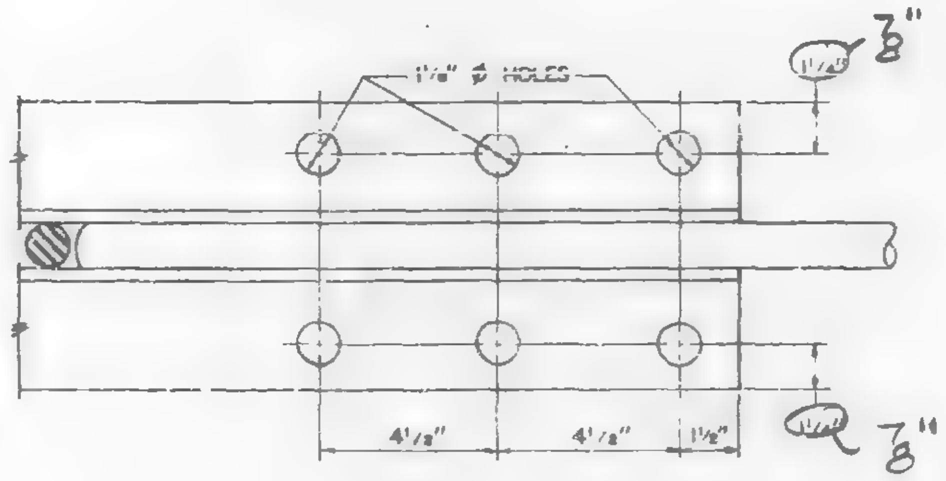


ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R21.
SEE SHEET ST296 FOR V5 & V8 DETAILS.

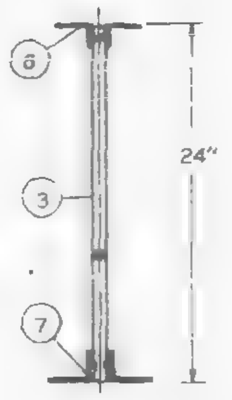
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K$_1$"	———	———
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19'-6"	+ 3/8"



SECTION A-A



SECTION B-B



SECTION C-C

TISHMAN
MAY 23
CONSTRUCTION DEPT.

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-2	4-1-68
7-AB4-15.1	10-27-68
7-AB4-16 & 18	1-3-68
7-AB4-28 & 41	1-3-68
7-AB4-10 & 38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO.	DIA.
24T14 -196	8	A242	1½" x 1¼" x .275	[illegible]-6"	7	A242	2" x 1½" x .25	14'-9½" (8")	3	A242	.98	17'-10⅝"	3½K @ 3'-4" = 11'-8"			—	—

E.E.	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS$_1$"				END STIFFENER MK. V5			END STIFFENER MK. V8			BEARING ANGLES			
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14 -196	6'-1¼"	2	A242	.98	1'-11¾"	1	A242	.98	5"-2⅞"	—	——	—	——	A242	.98	2⅞"	A242	.98	1'-11¼"	9	A242	[illegible] x .275	2'-3"

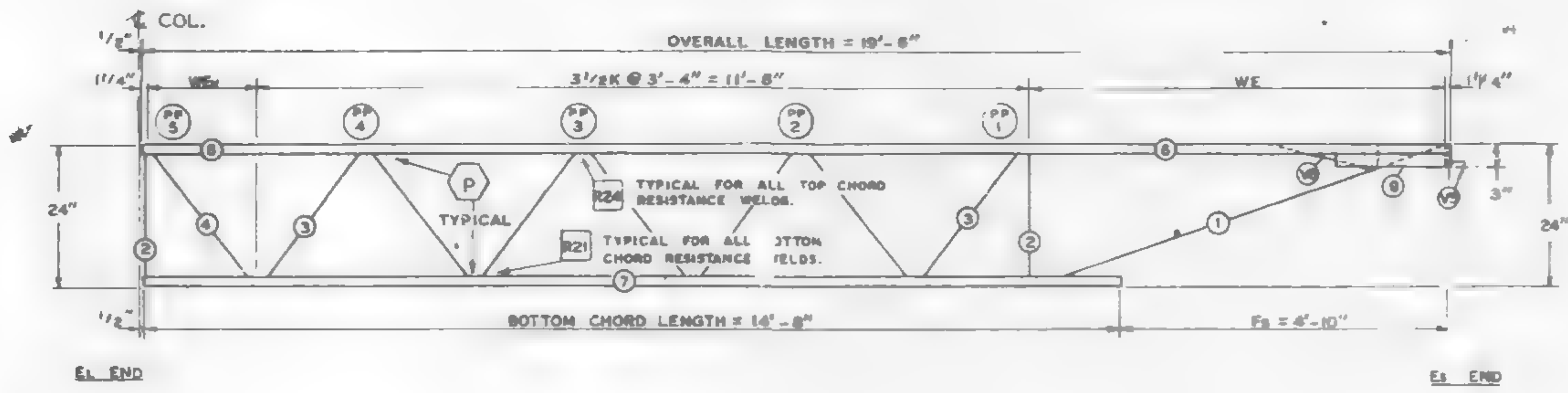
E.E. END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WE$_V$	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14 -196	2	A242	.98	1'-11¾"	1'-6¼"	4	A242	1	.98	2'-5"

FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

FABRICATION BY: LACLEDE STEEL COMPANY

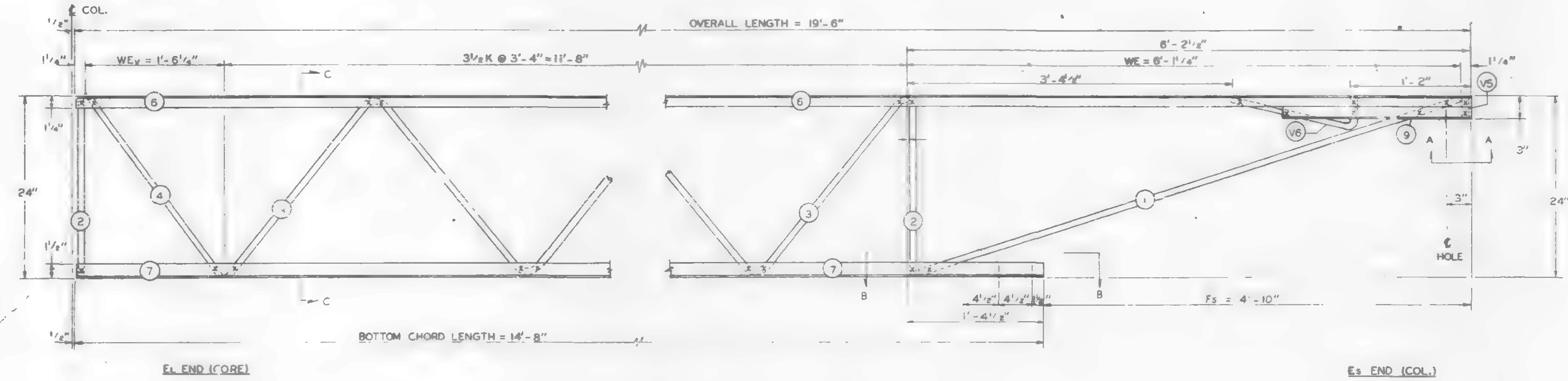
FABRICATED AT: MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB[illegible]	PLATE –
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A.	DATE	DRAWN [illegible] DATE [illegible]	
APPROVED FOR FABRICATION BY [illegible]	DATE	CHECKED BY: T.M. CHURA DATE [illegible]	IN CHARGE OF PROD. DEV.
DETAILED BY: R.C. WEBER		FABRICATION CONT. NO. WTC 221	SHEET NO. BT 214



EL END

ES END

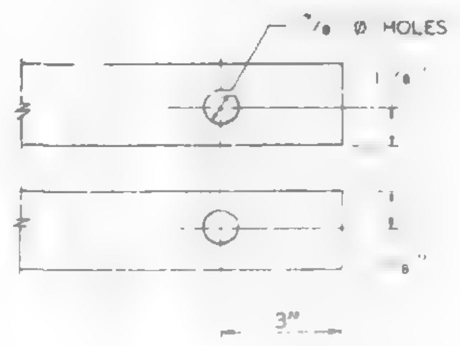
FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K₁"	——	——
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19'-6"	+ 3/8"



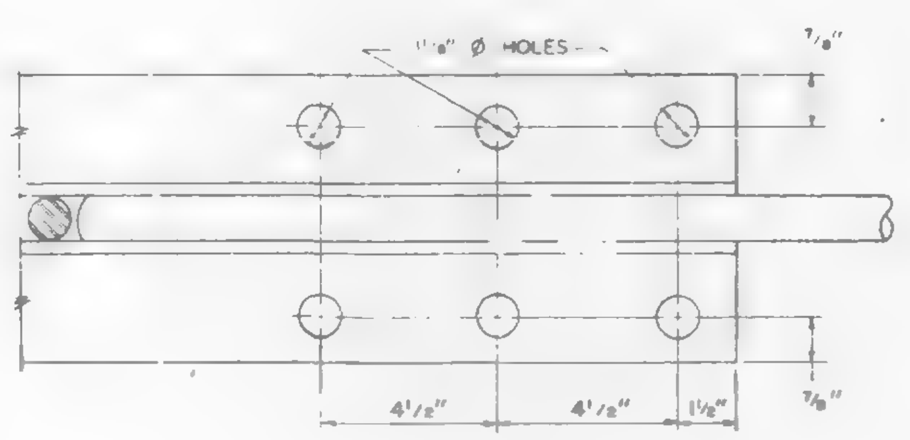
EL END (CORE)

ES END (COL.)

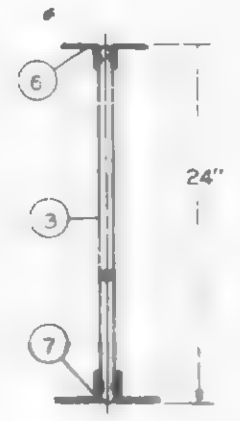
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (////).
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R21].
SEE SHEET ST296 FOR V5 & V6 DETAILS.



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-9	4-1-68
7-AB4-15.1	1-3-68
7-AB4-18&19	1-3-68
7-AB4-20&41	1-3-68
7-AB_-18&38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO	DIA.
24T14 -196	6	A242	1½" x 1¼" x .275"	19'-6"	7	A242	2" x 1½" x .25"	14'-8"	3	A242	.98	17'-11¼"	3½K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS₁"				END STIFFENER MK. V5			END STIFFENER MK. V6			BEARING ANGLES			
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14 -196	6'-1¼"	2	A242	.98	1'-11¾"	1	A242	.98	6"-2⅞"	—	——	—	——	A242	.98	2⅞	A242	.98	1'-11¼"	9	A242	2" x 1½" x .25	2'-3"

EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEv	WEB "WT"				
		MK.	TYPE STEEL	DIA	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14 -196	2	A242	.98	[illegible]	1'-6¼"	4	A242	1	.98	2'-5¼"

NO.	DATE	REVISION	BY
2	7-3-68	MAIN WEB, WT	T.M.C.
1	6-26-68	GENERAL	T.M.C.

FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14 x 19'-6" LONG

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO. 7-AB2-9 PLATE

APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE

DRAWN BY: DATE APR. 20, 1968

APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE

CHECKED BY T.M. CHURA DATE APR. 20, 1968

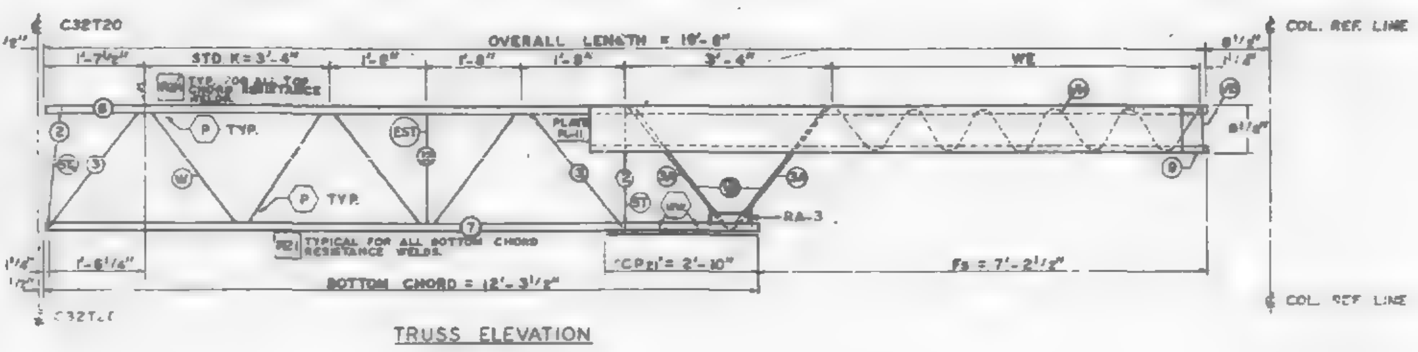
IN CHARGE OF PROD. DEV.

DETAILED BY A.C. WEBER

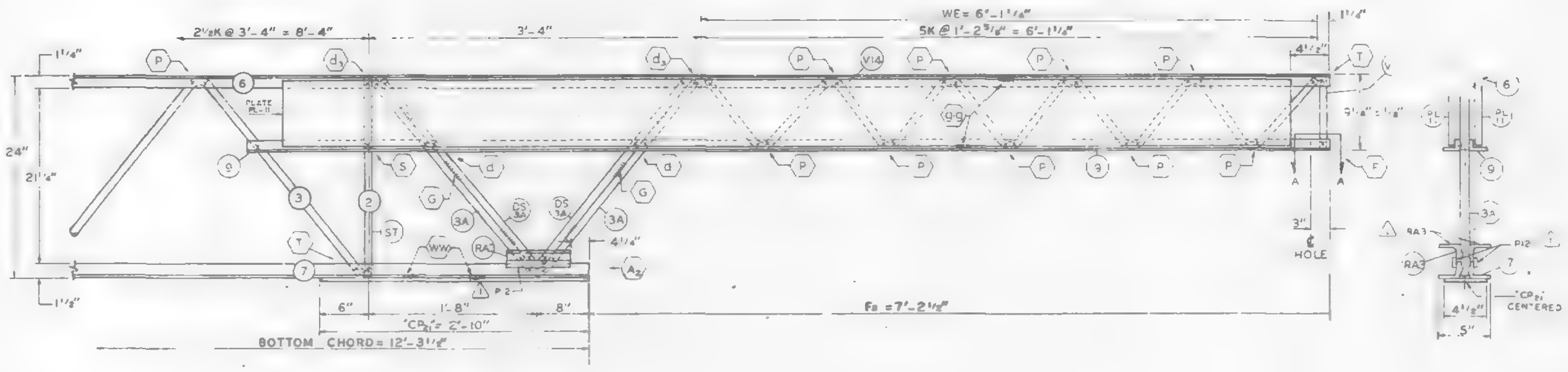
FABRICATION CONT. NO. WTC 221

SHEET NO. ST 214

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
OVERALL LENGTH	19'-6"	± 3/8"
WEB DEPTH	23 7/8"	± 1/4"

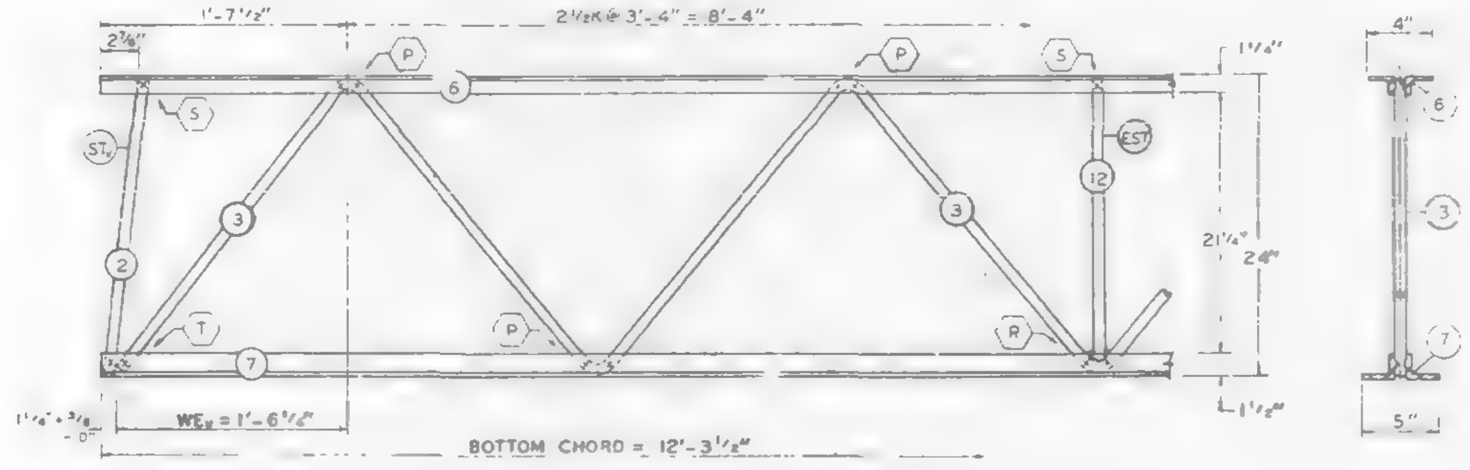


TRUSS ELEVATION

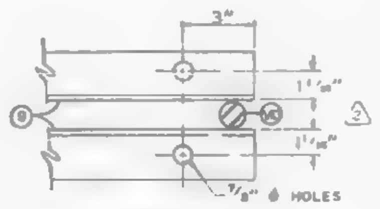


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED. (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM i.e.,
LETTERS IN HEXAGONS INDICATE WELD DETAILS. i.e., (P).
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, ST 293 & ST 294.
STIFFENER PL SHOWN ON SHEET ST 408.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283 & ST 284.



EL END (CORE)



SECTION A-A

REF. DRWG.

7-AB2-14	10-4-68
7-AB1-55	10-15-68
7-AB4-54	10-4-68
7-AB4-58	10-4-68
SA-124	10-11-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		REINFORCING ANGLES (1)					SPECIAL PLATES (1)				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	PCS.	LENGTH			MK.	PCS.	TYPE STEEL	ANGLE SIZE	LENGTH	MK.	PCS.	TYPE STEEL	SIZE	LENGTH
24T14A-196	6	A242	1½"x1½"x.275"	19'-6"	7	A242	2½"x1½"x.25"	12'-3½"	3 / 3A	A242 / A242	.98 / .98	[illegible]	[illegible]	12	A242	.98		1'-10⅞"			RA3	2	A242	2½"x1½"x.25"	7½"	P12	2	A36	1"x ⅜"	7½"

Es END TRUSS DESIGNATION	VERTICAL "ST" STRUT				BEARING ANGLES				WE	DOUBLE STRUT				CHORD PLATE				END STIFFENER MK. V13			END STIFFENER MK. V14			STIFFENER PLATE					
	MK.	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	CHORD SIZE (2)	LENGTH		MK.	TYPE STEEL	DIA	LENGTH (2 REQ'D)	MK.	TYPE STEEL	SIZE	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	PLATE SIZE	LENGTH	PCS	
24T14A-196	2	A242	.98	1'-11¾"	9	A242	2"x1½"x.25"	10'-9½"	6'-1⅛"	DS 3A	A242	.98	2'-3¾"	CP 21	A36	4"x.30	2'-10"	A242	.98	9"	A242	.98	9'-3"	PL 11	A36	8"x.75"	10'-0"	2	

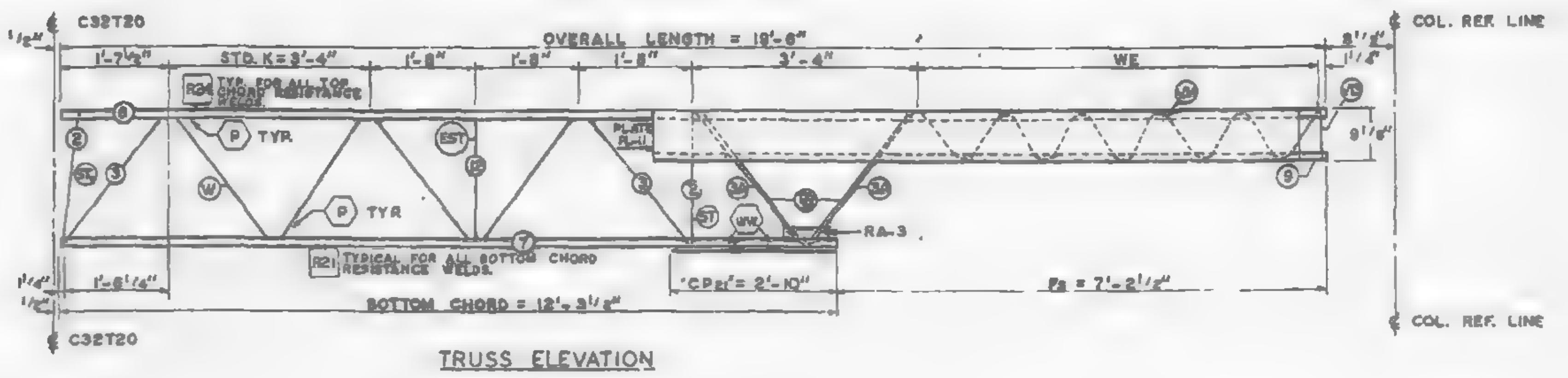
EL END TRUSS DESIGNATION	INCLINED "ST_v" STRUT				WE_v
	MK.	TYPE STEEL	DIA	LENGTH	
24T14A-196	2	A242	.98	1'-11¾"	1'-6¼"

NO.	DATE	REVISION	BY
(2)	3-18-69	AS NOTED	G.D.C.
(1)	12-26-68	AS NOTED	G.D.C.

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

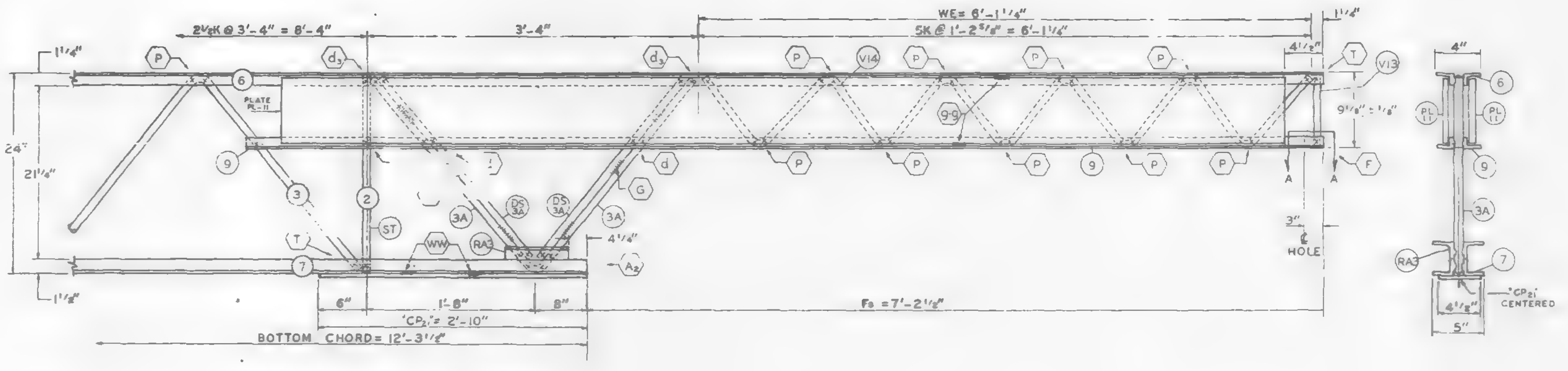
BRIDGING TRUSS 24T14A x 19'-6" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO.
PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE 3/24/69
DRAWN BY: gdc DATE OCT. 31, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
LACLEDE STEEL CO.
DETAILED BY A. CARL WEBER
CHECKED BY: T.M. CHURA DATE OCT 31, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT. NO W.T.C. 221
SHEET 5
BT 214 A



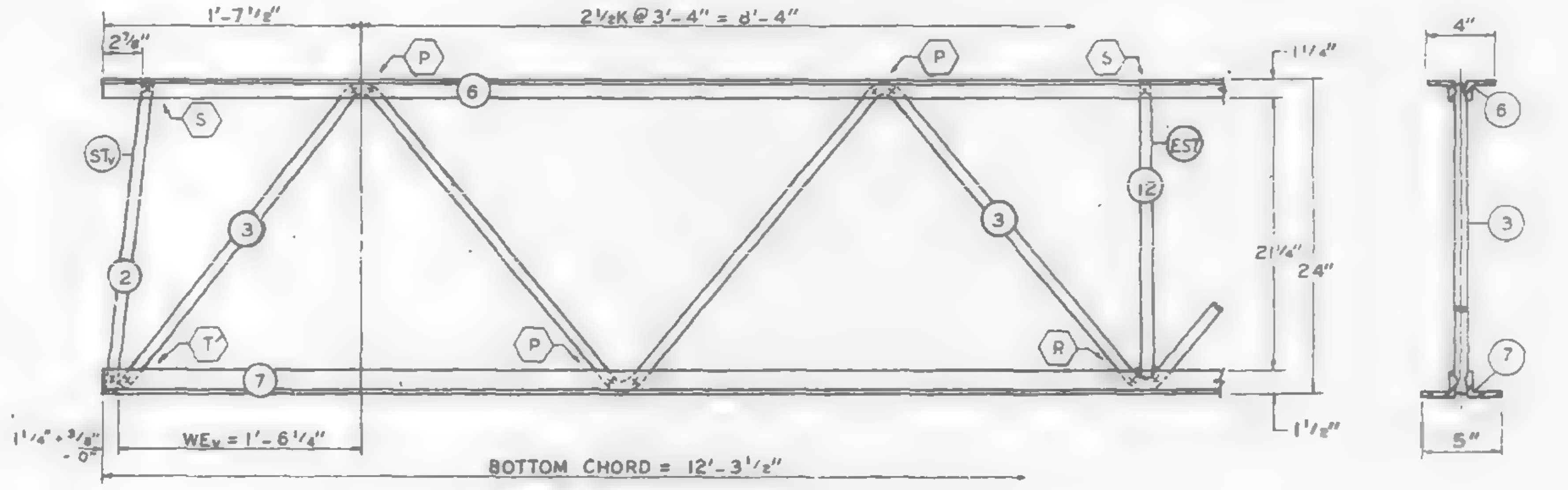
TRUSS ELEVATION

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL 'K'	3'-4"	± 1/4"
OVERALL LENGTH	19'-6"	± 3/8"
WEB DEPTH	23 7/8"	± 1/4"

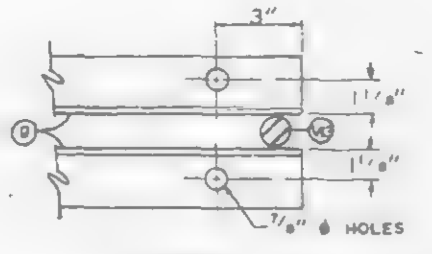


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. (IIIIIII).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, ie., (P).
ALL WELD DETAILS SHOWN ON SHEETS ST 290, ST 291, ST 293 & ST 294.
STIFFENER PL SHOWN ON SHEET ST 408.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283 & ST 284.



EL END (CORE)



SECTION A-A

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	PCS.	LENGTH		
24T14A - 196	6	A242	1½"x1½"x.275"	19'-6"	7	A242	2"x1½"x.25"	12'-3⅛"	3 / 3A	A242 / A242	.98 / [illegible]	[illegible]	3K@3'-4"=10'-0" / [illegible]	12	A242	.98	1	1'-10⅞"		

Eo END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				BEARING ANGLES				WE	DOUBLE STRUT				CHORD PLATE				END STIFFENER MK. V13			END STIFFENER MK. V14			STIFFENER PLATE					REINFORCING ANGLES				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH (2 REQ'D)	MK.	TYPE STEEL	SIZE	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PLATE SIZE	LENGTH	PCS.	MK.	PCS.	TYPE STEEL	SIZE	LENGTH
	24T14A - 196	2	A242	.98	1'-11¾"	9	A242	1½"x1½"x.275"	10'-9½"	6'-1¼"	DS 3A	A242	.98	2'-3¾"	CP 21	A36	4"x.30	2'-10"	A242	.98	9"	A242	.98	9'-3"	PL 11	A36	8"x.75"	10'-0"	2	RA3	2	A242	2"x1½"x.25"	7½"

EL END	TRUSS DESIGNATION	INCLINED "STv" STRUT				WEv
		MK.	TYPE STEEL	DIA.	LENGTH	
	24T14A - 196	2	A242	.98	1'-11¾"	1'-6¼"

REF. DRWG.

7-AB2-14	10-4-[illegible]
7-AB1-55	10-15-[illegible]
7-AD4-54	10-4-[illegible]
7-AB4-56	10-4-[illegible]
3A-124	10-11-[illegible]

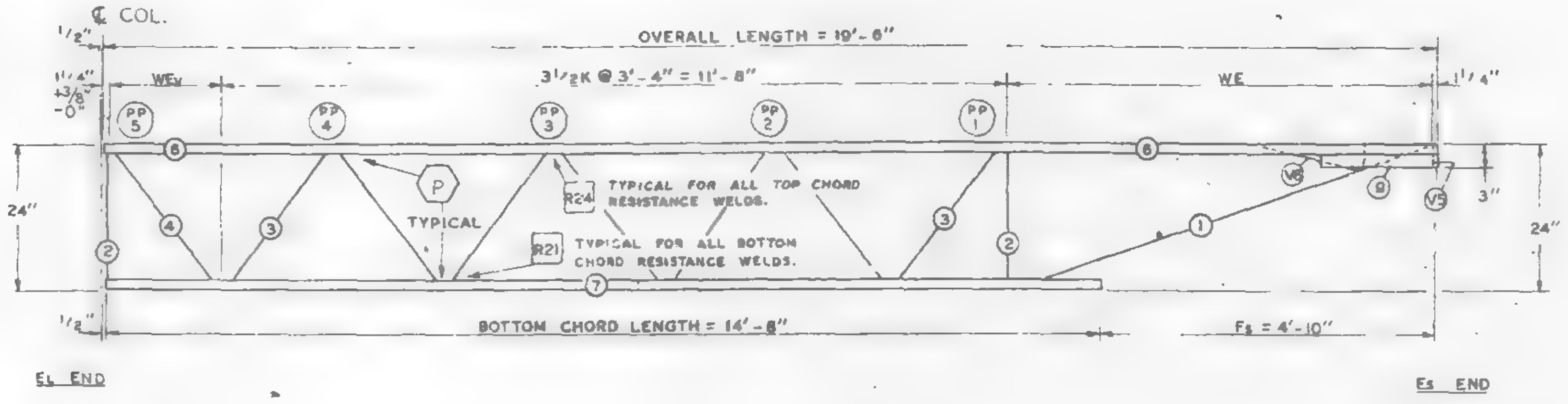
PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.

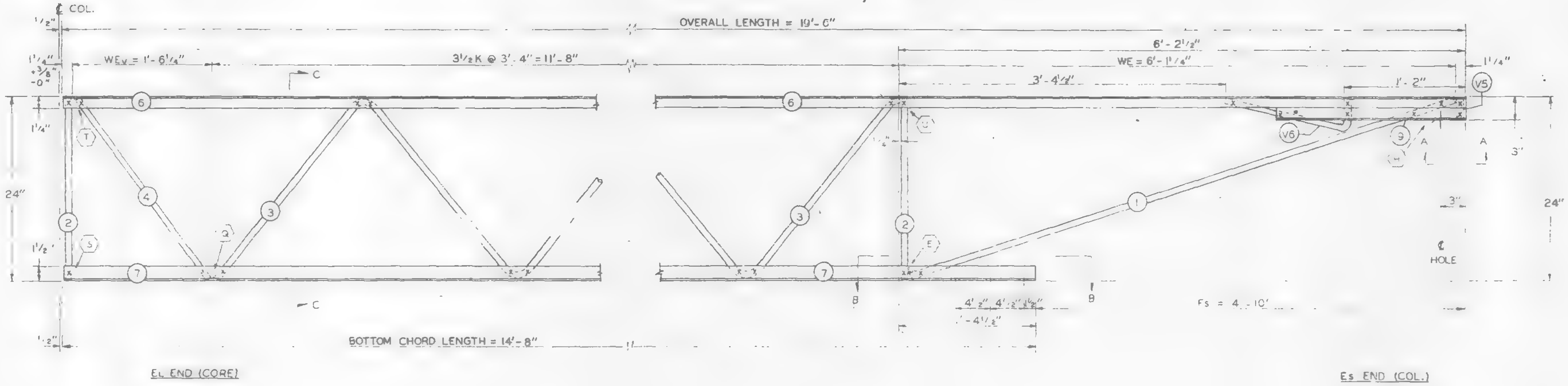
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T14A x 19'-6" LONG
WORLD TRADE CENTER TOWERS A & B

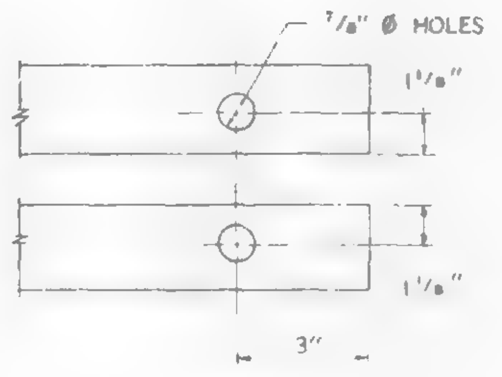
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. | PLATE
APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. DATE 11/15/68
DRAWN BY: ajk DATE OCT. 31, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE OCT. 31, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT 214 A



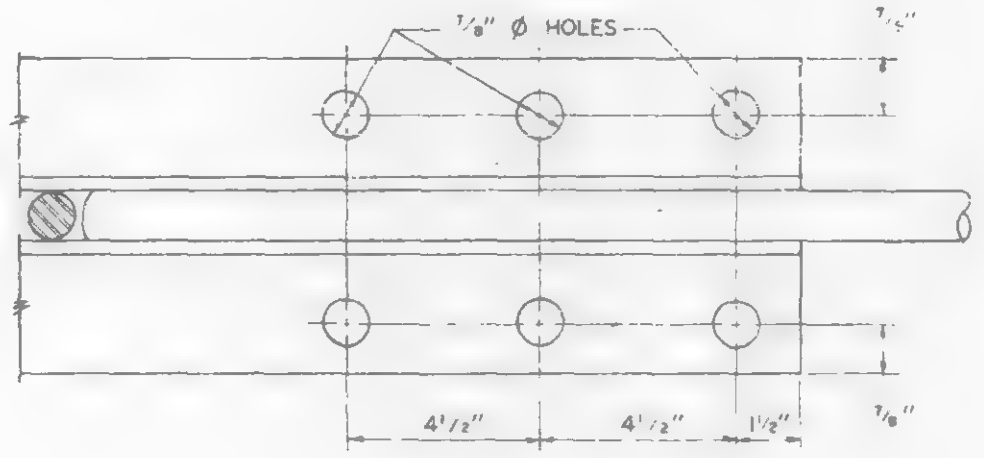
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	+ 1/4"
PANEL "K"	3'-4"	+ 1/4"
PANEL "K1"	———	———
WEB DEPTH	23 7/8"	+ 1/4"
OVERALL LENGTH	19' - 6"	+ 3/8"



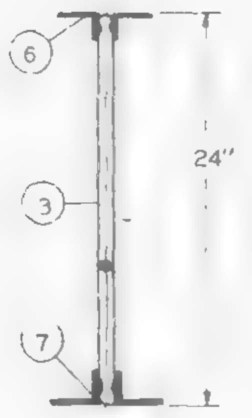
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.
SEE SHEET ST296 FOR V5 & V6 DETAILS.



SECTION A-A



SECTION B-B



SECTION C-C

REF. DWGS.

7-AB2-1	1-6-69
7-AB2-9	1-6-69
7-AB4-15J	10-4-68
7-AB4-18	7-22-68
7-AB4-28	7-22-68
7-A54-18	1-6-69

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K			NO.	DIA.
24T14B-196	6	A242	1 1/2" x 1 1/4" x .275"	19'- 6"	7	A242	2" x 1 1/2" x .25"	14'- 8"	3	A242	.98	17'-11 1/4"	3 1/2K @ 3'-4" = 11'-8"			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				DIAGONAL "T" STRUT				WEB "DS1"				END STIFFENER MK. V5			END STIFFENER MK. V6			BEARING ANGLES			
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
	24T14B-196	6'-1 1/4"	2	A242	.98	1'-11 3/4"	1	A242	.98	6"-2 7/8"	—	——	—	——	A242	.98	2 7/8"	A242	.98	1'-11 1/4"	9	A242	2" x 1 1/2" x .25	2'-3"

EL END	TRUSS DESIGNATION	VERTICAL "ST" STRUT				WEv	WEB "WT"				
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T14B-196	2	A242	.98	1'-11 3/4"	1'-6 1/4"	4	A242	1	.98	2'-5 1/2"

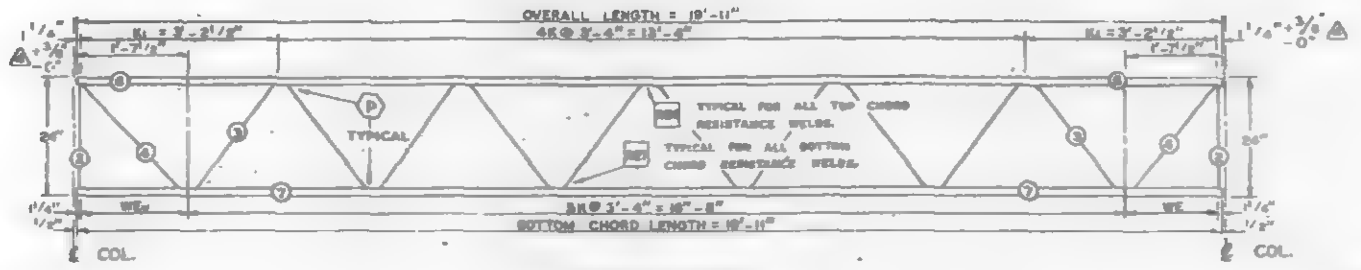
NO.	DATE	REVISION	BY

FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

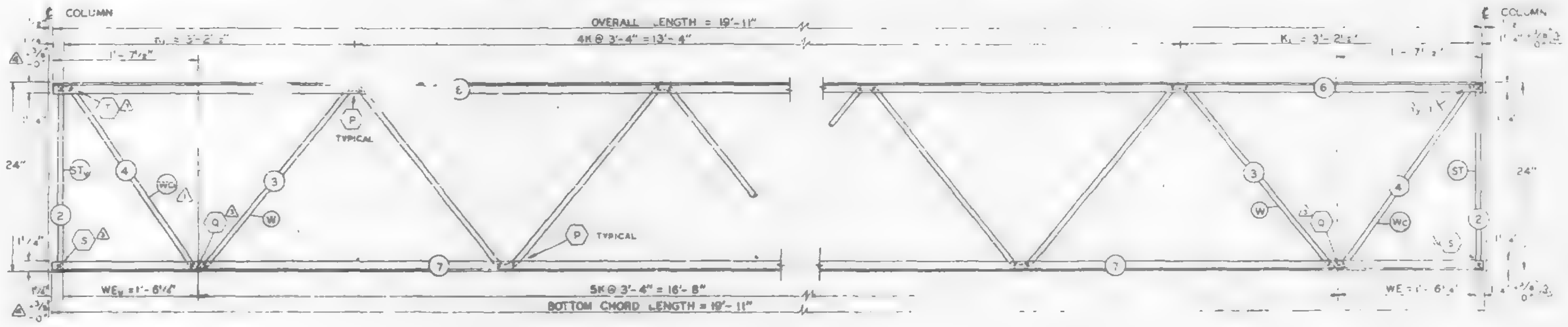
BRIDGING TRUSS 24T14B x 19'-6" LONG

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-9 PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A. DATE 2/10/69
DRAWN BY: DATE: JAN 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M. OHURA DATE: JAN 1969
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 2[illegible]
SHEET NO. BT 214B

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3 . 8"
DESIGN DEPTH	24"	± 1 4"
PANEL "K"	3'- 4"	± 1 4"
PANEL "K1"	3'-2' 2"	± 1 4"
WEB DEPTH	23 7/8"	± 1 4"
OVERALL LENGTH	19'-11"	± 3 8"



EL END — TRUSS ELEVATION — Es END



EL END ELEVATION

Es END ELEVATION

ALL PANEL POINTS RESISTANCE WELDED.
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290 AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R24.

REF. DWGS.

7-A82-1	4-1-68
7-A82-10	4-15-68
7-A83-1	6-10-68
7-A84-6 & 8	5-6-68
7-A84-28 & 4	1-3-68
7-A84-38	4-1-68

PAINT
LACLEDE ELECTROCOAT
MED. No. 10061

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO	DIA
24T15 - 1911	6	A242	1 1/4" x 1 1/4" x .275	19'-11"	7	A242	1 1/8" x 1 1/4" x .23	19'-11"	3	A242	.98	25-7 1/8"	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

Es END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T15 - 1911	1'-6 1/4"	2	A242	.98	1'-11 3/4"	4	A242	1	.98	2'-5 1/8"

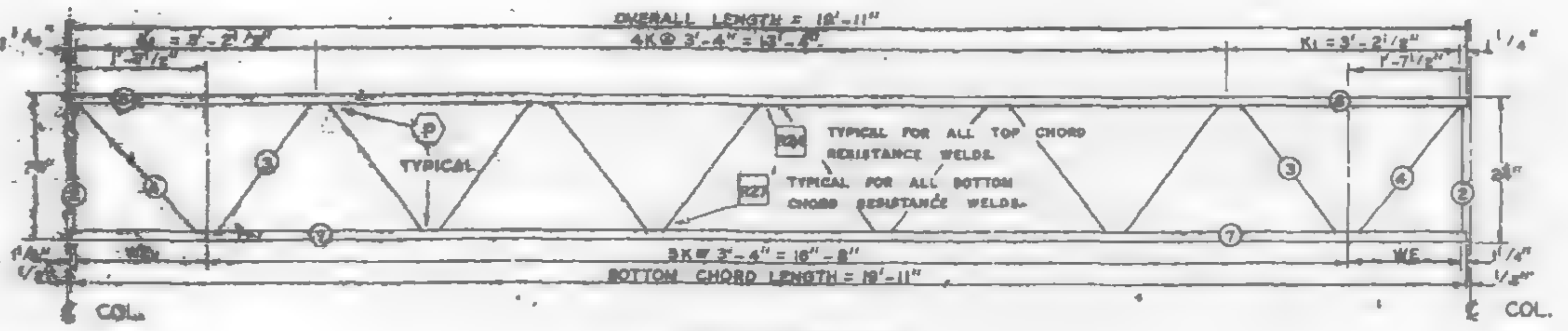
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				VERTICAL "STv" STRUT				END STIFFENER MK. VS			END STIFFENER MK. VS			WEB "Wc"				
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T15 - 1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.98	1'-11 3/8"	—	—	—	—	—	—	4	A242	1	.98	2'-5 1/8"

NO	DATE	REVISION	BY
4	9-6-68	END DIST (2)	TMC
3	7-5-68	AS NOTED	TMC
2	7-3-68	MAIN WEB	TMC
1	6 28 68	REF DRWG, WCV	TMC

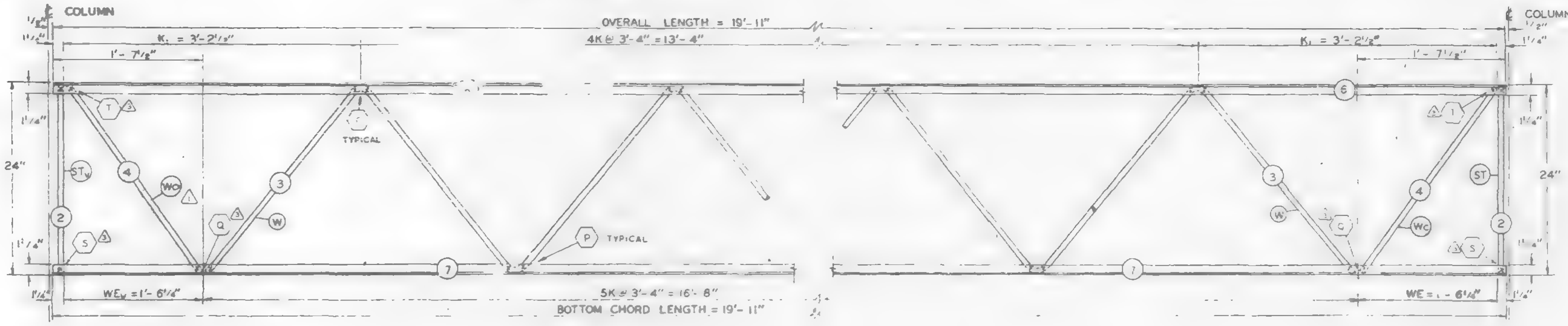
BRIDGING TRUSS DETAILS
WORLD TRADE CENTER
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY ___ FOR CONRAD DATE 7/10/68
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR DATE
DETAILED BY A.C. WEBER
DESIGN DRAWING NO. 7-A82-10
DRAWN BY gdc DATE MAY 24, 1968
CHECKED BY T.MCHURA DATE MAY 24, 1968
FABRICATION CONT. NO. WTC 221
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO. BT215



EL END — TRUSS ELEVATION — ES END



EL END ELEVATION — ES END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST 290 AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R24].

REF. DWGS.

7-A82-1	4-1-68
7-A82-10	4-15-68
7-A83-11	6-10-68 △1
7-A84-16 & 18	5-4-68 △1
7-A84-28 & 41	1-3-68
7-A84-38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
[illegible]-1911	6	A242	1 1/2" x 1 1/4" x .275	19'-11"	7	A242	1 1/2" x 1 1/4" x .23	19'-11"	3	A242	.98	25'-7 1/2" △2	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

ES END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "WC"				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15 - 1911	1'-6 1/4"	2	A242	.98	1'-11 3/4"	4	A242	1	.98	2'-5 1/8"

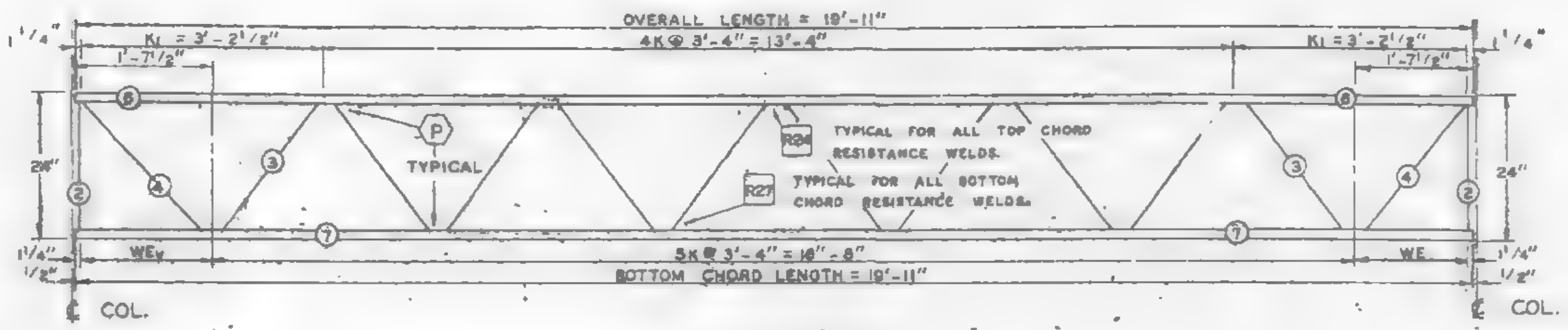
EL END TRUSS DESIGNATION	BEARING ANGLES				WEV	DIAGONAL "T" STRUT				VERTICAL "STV" STRUT				END STIFFENER MK. V5			END STIFFENER MK. V6			WEB "WCV" △1				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	PCS	DIA	LENGTH
24T15 - 1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.98	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.98	2'-5 1/8"

NO	DATE	REVISION	BY
△3	7-5-68	AS NOTED	TMC
△2	7-3-68	MAIN WEB	T.M.C.
△1	6-26-68	REF DRWG, WCV	TMC

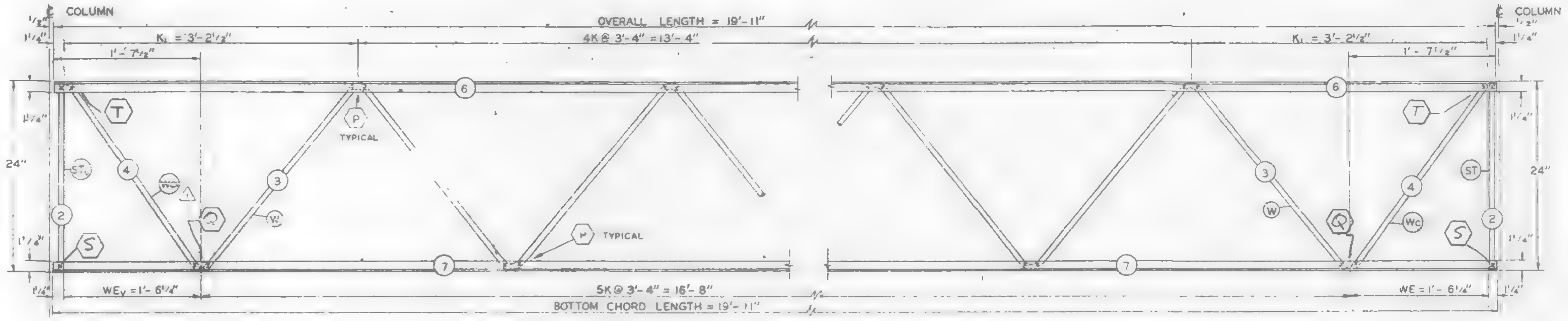
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-A82-10 PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 7/9/68
DRAWN BY: gac DATE MAY 24, 68
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO BT215



E_L END — TRUSS ELEVATION — E_S END



E_L END ELEVATION — E_S END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K_1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290 AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R24.

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-10	4-15-68
7-AB3-11	6-5-68
7-AB4-16 & 18	5-6-68
7-AB4-28 & 41	1-3-68
7-AB4-38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO	DIA.
24T15 - 1911	6	A242	1 1/2" x 1 1/4" x .275"	19'-11"	7	A242	1 1/2" x 1 1/4" x .23"	19'-11"	3	A242	.92	30'-6 1/2"	5K@ 3'-4" = 16'-8"	—	—	—	—	—			—	—

Es END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15 - 1911	1'-6 1/4"	2	A242	.98	1'-11 3/4"	4	A242	1	.98	2'-5 1/2"

EL END TRUSS DESIGNATION	BEARING ANGLES				WE_V	DIAGONAL "T" STRUT				VERTICAL "ST_V" STRUT				END STIFFENER MK. VS			END STIFFENER MK. VS			WEB "Wc_V" ⚠				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15 - 1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.98	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.98	2'-5 1/2"

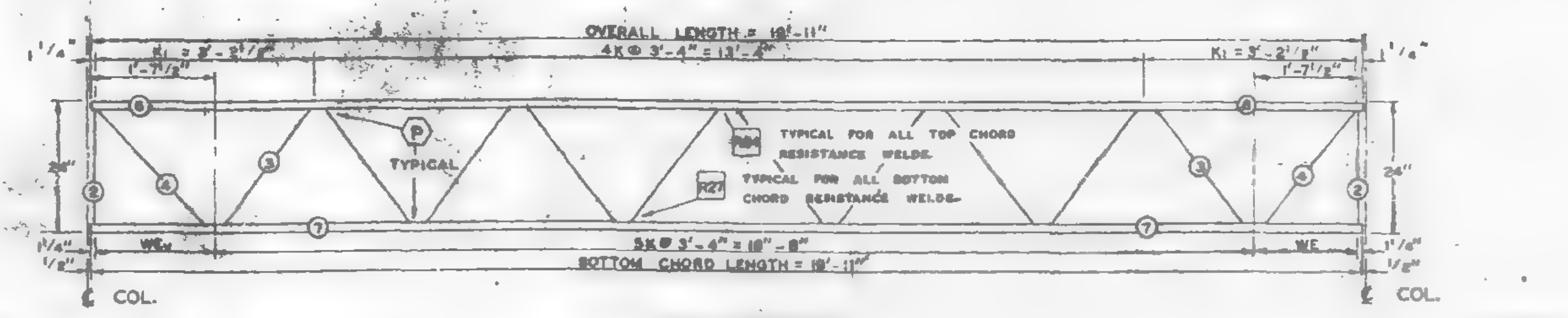
SKILLING HELLE CHRISTIANSEN ROBERTSON Structural & Civil Engineers
7/5/68 SK

NO	DATE	REVISION	BY
⚠ 1	6-26-68	REF. DRWG., WCV	T.M.C.

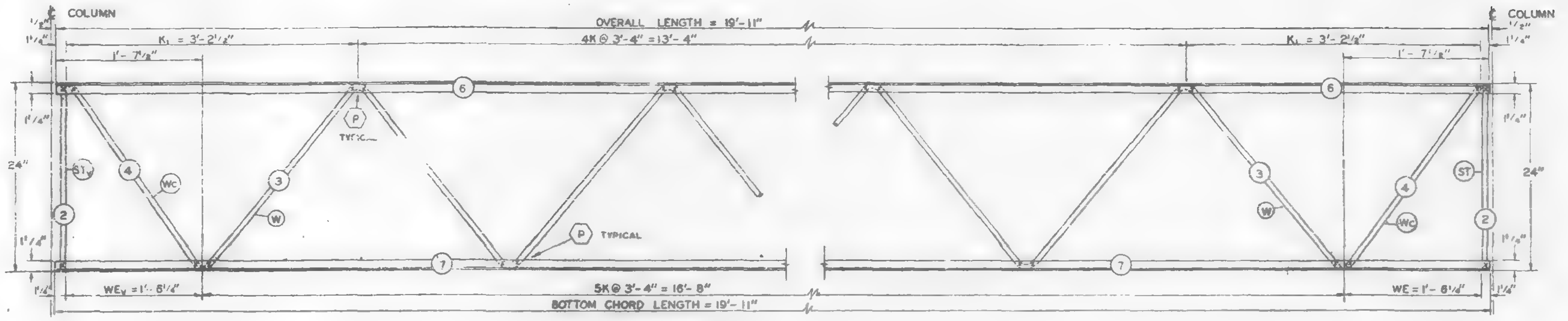
BRIDGING TRUSS DETAILS
FOR
WORLD [illegible] CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-10 PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
DRAWN BY: GAC DATE MAY 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT215



TRUSS ELEVATION



EL END ELEVATION

ES END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2½"	± 1/4"
WEB DEPTH	23⅞"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST 290 AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R24

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-10	4-15-68
7-AB3-11	4-15-68
7-AB4-16 & 18	5-7-68
7-AB4-28 & 41	1-3-68
7-AB4-38	4 [illegible] 68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T15-1911	6	A242	1½" x 1¼" x .2[illegible]	19'-11"	7	A242	1½" x 1¼" x .23	19'-11"	3	A242	.98	30'-6½"	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

ES END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15-1911	1'-6¼"	2	A242	.98	1'-11¾"	4	A242	1	.98	2'-5½"

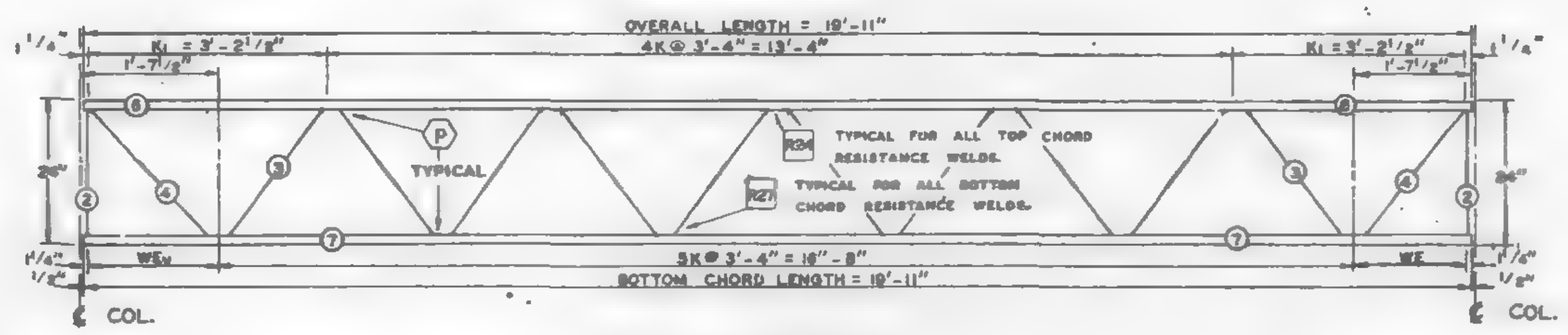
EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "T" STRUT				VERTICAL "STv" STRUT				END STIFFENER MK. VS			END STIFFENER MK. VS			WEB "Wc"				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15-1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.98	1'-11¾"	—	—	—	—	—	—	4	A242	1	.98	2'-5½"

NO.	DATE	REVISION	BY

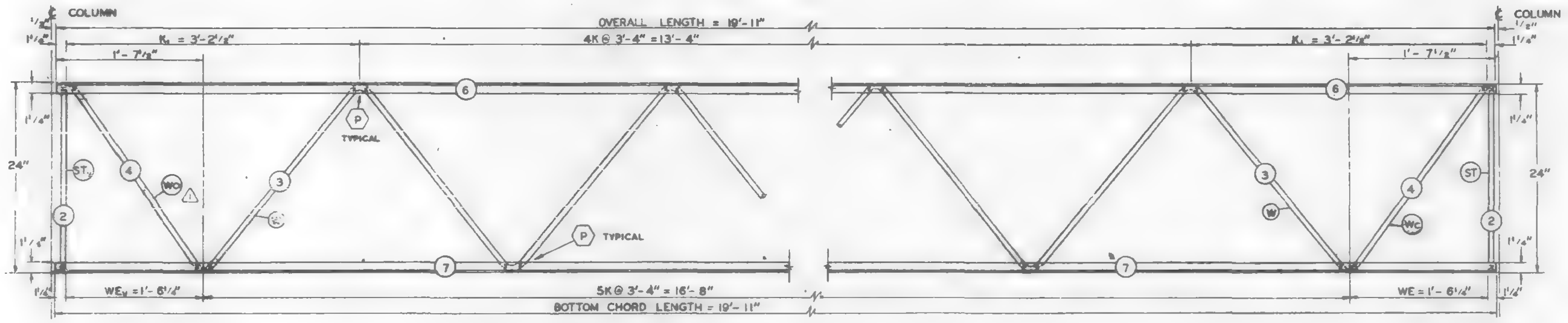
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-8

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-10 PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A DATE 6/6/68
DRAWN BY: gac DATE MAY 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
LACLEDE STEEL CO.
CHECKED BY T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO BT215



EL END — TRUSS ELEVATION — ES END



EL END ELEVATION — ES END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/8"	± 1/4"
WEB DEPTH	23 7/8"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST 290 AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R24.

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-10	4-15-68
7-AB3-11	6-10-68
7-AB4-16 & 18	5-6-68
7-AB4-28 & 41	1-3-68
7-AB4-38	4-1-68

PAINT
LACLEDF ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T15 - 1911	6	A242	1 1/2" x 1 1/4" x .275	19'-11"	7	A242	1 1/2" x 1 1/4" x .23	19'-11"	3	A242	.98	25'-7 1/2"	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

ES END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "WC"				
		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15 - 1911	1'-6 1/4"	2	A242	.98	1'-11 3/4"	4	A242	1	.98	2'-5 1/2"

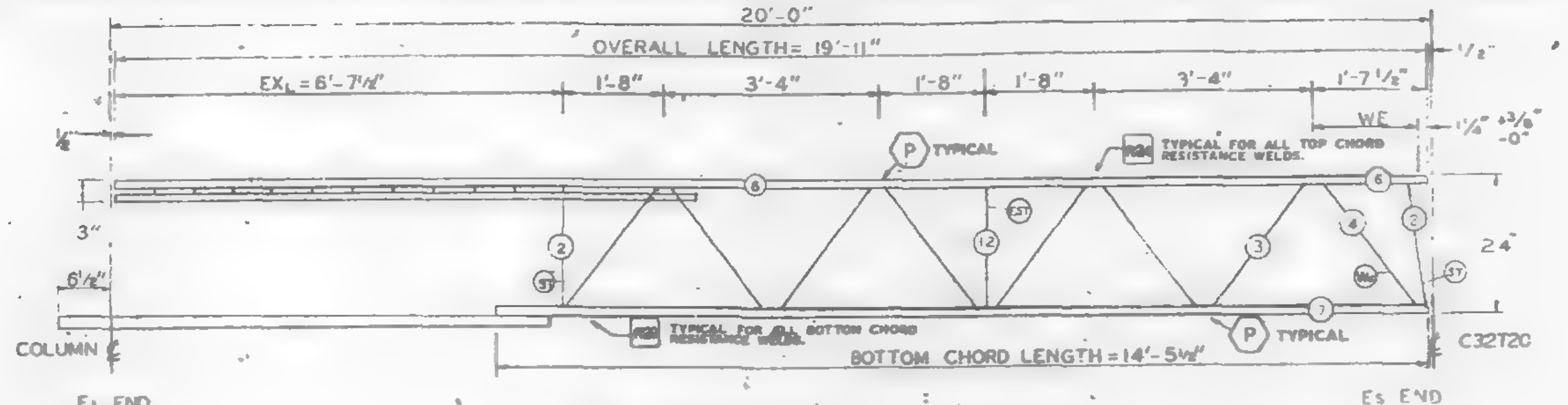
EL END TRUSS DESIGNATION	BEARING ANGLES				WE1	DIAGONAL "T" STRUT				VERTICAL "ST1" STRUT				END STIFFENER MK. Y5			END STIFFENER MK. Y6			WEB "WC1"				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T15 - 1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.98	1'-11 3/4"	—	—	—	—	—	—	4	A242	1	.98	2'-5 1/2"

NO.	DATE	REVISION	BY
2	7-3-68	MAIN WEB	T.M.C.
1	6-26-68	REF. DRWG., WCY	T.M.C

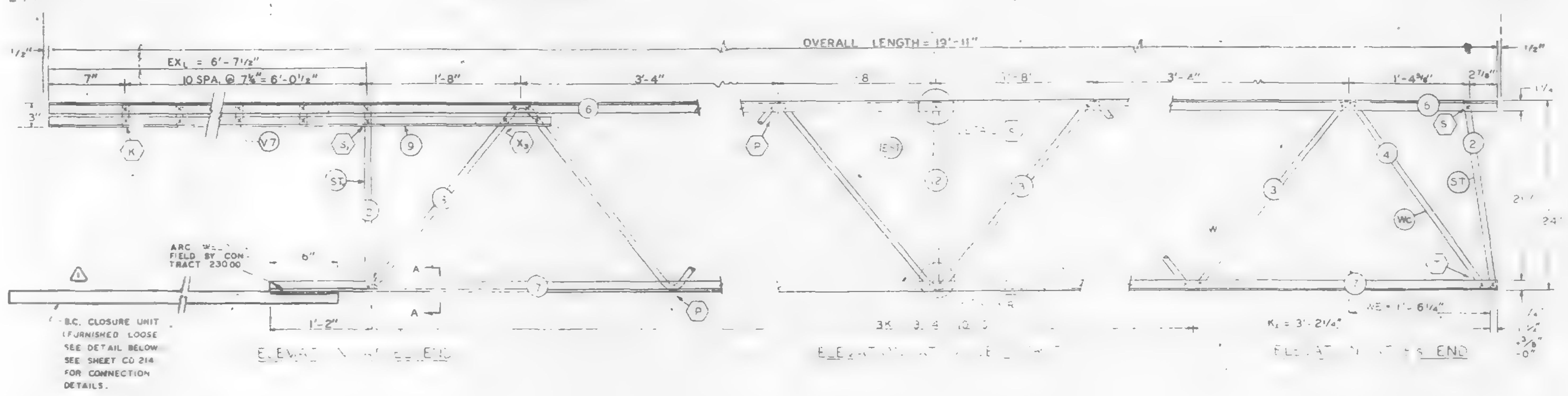
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-10 PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
DRAWN BY: gdc DATE MAY 24, 1968
CHECKED BY T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT215



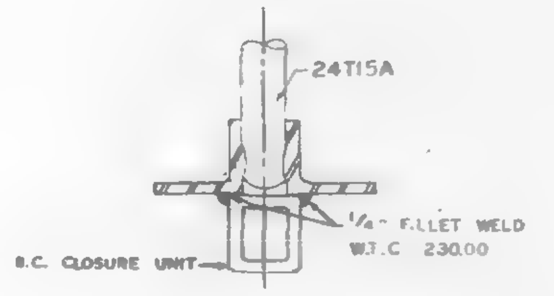
TRUSS ELEVATION



ALL PANEL POINTS RESISTANCE WELDED (R).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2 1/2"	± 1/4"
WEB DEPTH	23 1/2"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"



SECTION A-A △1

ELEVATION △1

END VIEW

B.C. CLOSURE UNIT

REF DWG.	
7-A82-1	10-4-68
7-A82-14	10-4-68
7-A84-15.1	10-4-68
7-A84-16 & 18	7-22-68
7-A84-19 & 38	10-15-68
7-A84-28 & 41	7-22-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

MATERIAL LIST FOR △2 B.C. CLOSURE UNIT

PCS.	TYPE STEEL	SIZE	LENGTH
1	A242	1 1/4 x .187 WALL SQ TUBING	6'-6 1/2"

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T15A-1911	6	A242	1 1/2 x 1 1/4 x .275	19'-11"	7	A242	1 1/2 x 1 1/4 x .230	14'-5 1/2"	3	A242	.98	17'-11 1/4"	3 1/2 K @ 3'-4" = 11'-8"	12	A242	.98	1'-10 7/8"	1		

ES END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "WC"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	PCS.	LENGTH
24T15A-1911	1'-6 1/4"	2	A242	.98	1'-11 3/4"	4	A242	.98	1	2'-5 1/2"

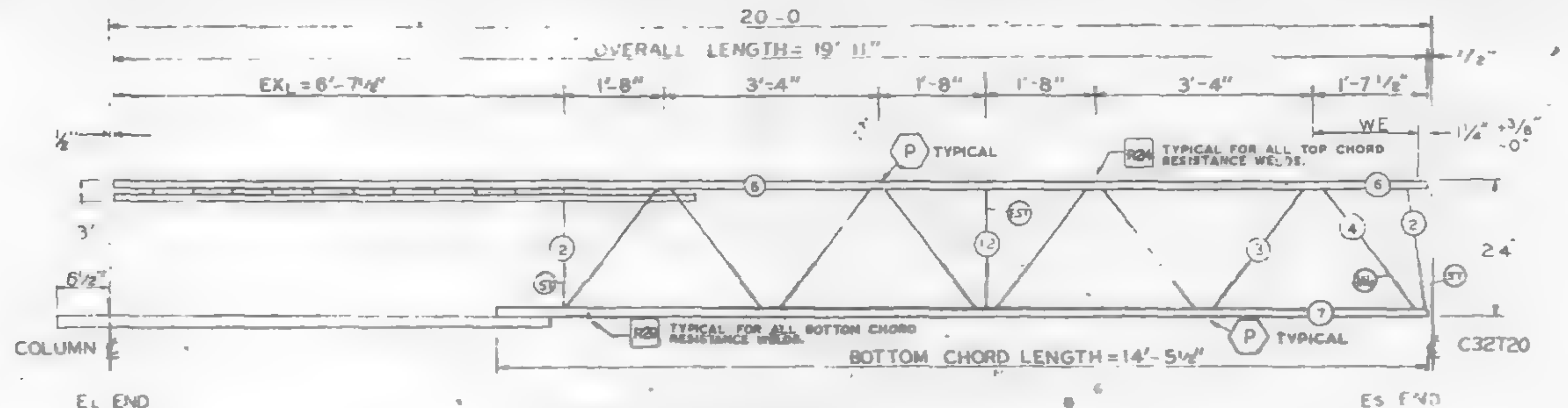
EL END TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK V7			
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
24T15A-1911	9	A242	1 1/2 x 1 1/4 x .275	8'-8"	6'-7 1/2"	—	—	—	—	2	A242	.98	1'-11 3/4"	A242	.98	2 7/8"	10

NO	DATE	REVISION	BY
2	12-4-68	TYPE STEEL BOX ADDED	G.D.C.
1	11-15-68	CLOSURE UNIT	LWH

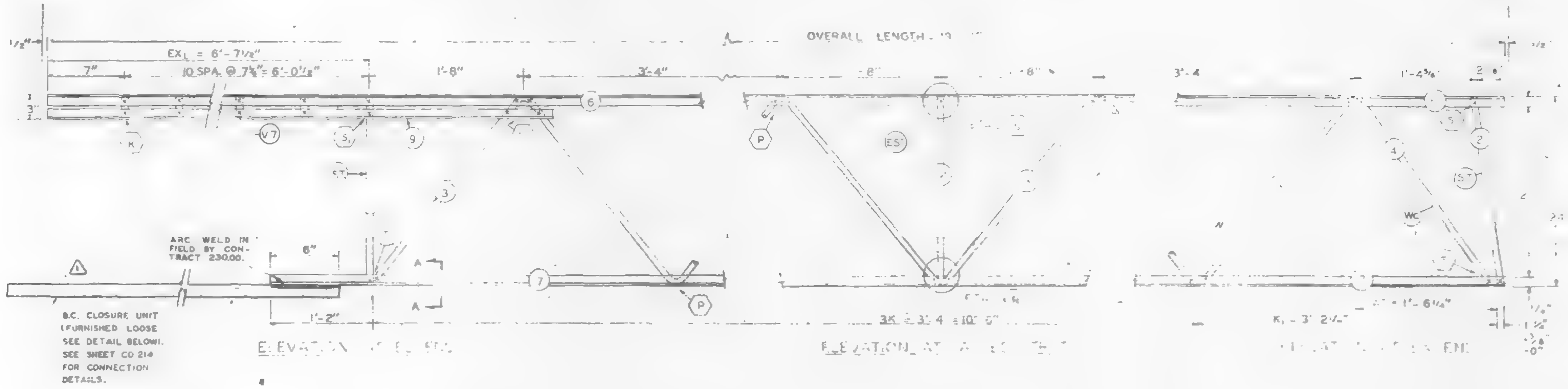
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

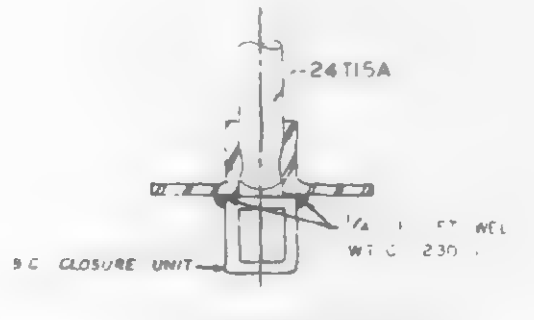
BRIDGING TRUSS 24T15A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A82-14 PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE 12/11/68
DRAWN BY: [illegible] DATE OCT. 28, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE OCT 28, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT 215



TRUSS ELEVATION





SECTION A-A

ELEVATION

END VIEW

B.C. CLOSURE UNIT

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ ⅛"
DESIGN DEPTH	24"	± ¼"
PANEL "K"	3'-4"	± ¼"
PANEL "K_1"	3'-2½"	± ¼"
WEB DEPTH	23⅞"	± ¼"
OVERALL LENGTH	19'-11"	± ⅜"

ALL PANEL POINTS RESISTANCE WELDED (X).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R29].

REF. DWG.
7-AB2-1 10-4-68
7-AB2-14 10-4-68
7-AB4-15.1 10-4-68
7-AB4-18 & 18 7-22-68
7-AB4-19 & 38 10-15-68
7-AB4-28 & 41 7-22-68

△ MATERIAL LIST FOR B.C. CLOSURE UNIT

PCS	SIZE	LENGTH	Type St
1	[illegible]	6'-6½"	A242
	[illegible]		

PAINT [illegible]

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T15A-1911	6	A242	1½"x1¼"x.275"	[illegible]-11"	7	A242	1½"x1¼"x.230	14'-5½"	3	A242	.98	17'-11¼"	3½K + 3'-4" = 11'-8"	12	A242	.98	1'-10⅞"	1		

E_S END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	PCS.	LENGTH
	24T15A-1911	1'-6¼"	2	A242	.98	1'-11¾"	4	A242	.98	1	2'-5½"

E_L END	TRUSS DESIGNATION	BEARING ANGLES				EX_L	DIAGONAL "T" STRUT				VERTICAL "ST_1" STRUT				END STIFFENER MK V7			
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T15A-1911	9	A242	1½"x1½"x.275"	8'-8"	6'-7½"	—	—	—	—	2	A242	.98	1'-11¾"	A242	.98	2⅞"	10

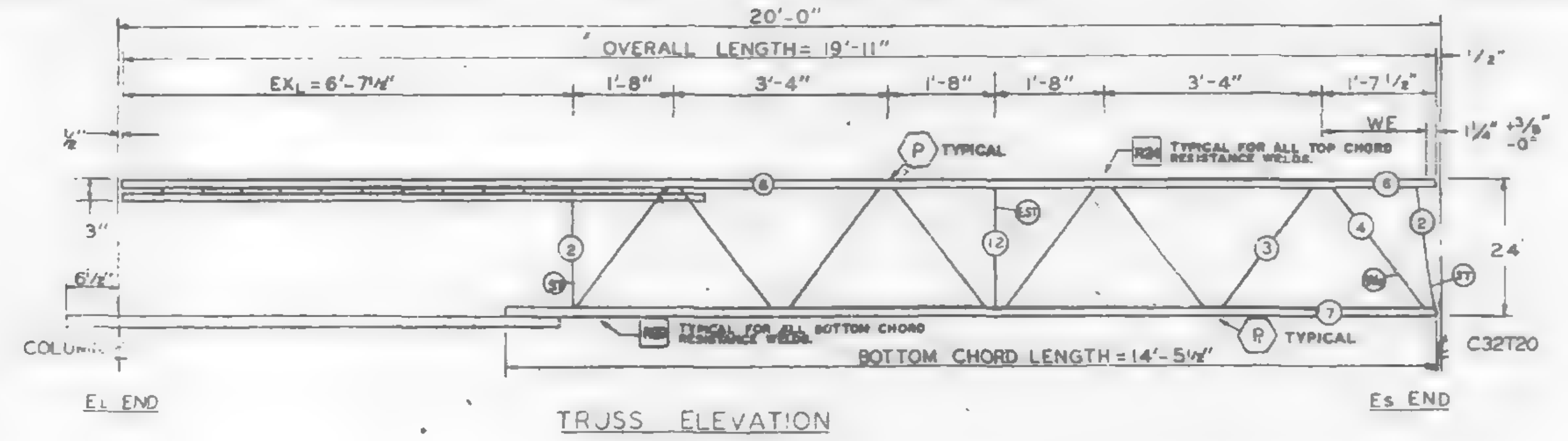
SKILLING · HELLE CHRISTIANSEN · ROBERTSON Structural & Civil Engineers
APPROVED
X APPROVED AS NOTED
12/3/68 SK

NO	DATE	REVISION	BY
△	11-15-68	CLOSURE UNIT	

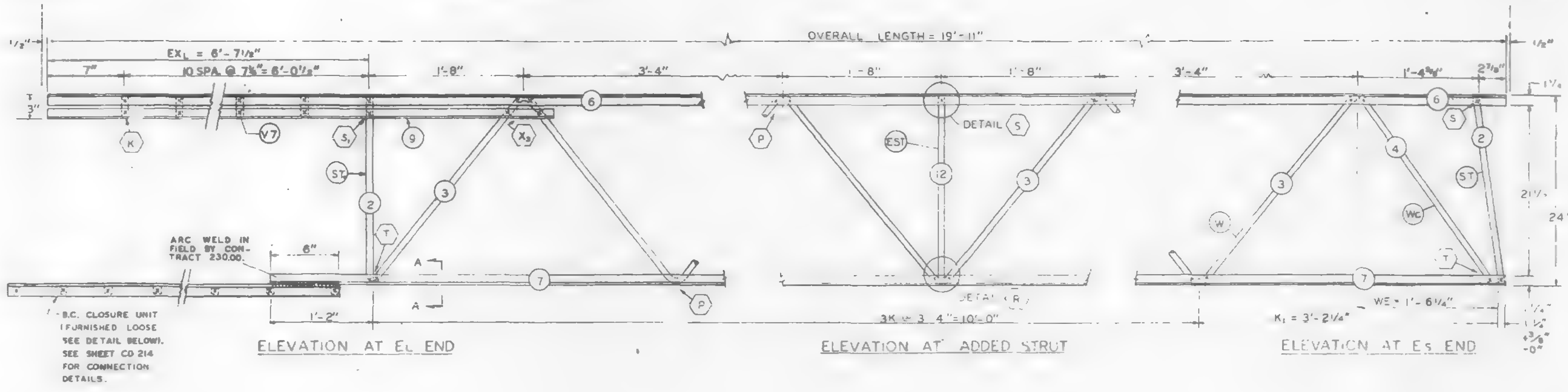
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO: 7-AB2-14 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE
DRAWN BY DATE OCT. 28, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.CHURB DATE OCT. 28, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. BT 215



TRUSS ELEVATION



ELEVATION AT EL END

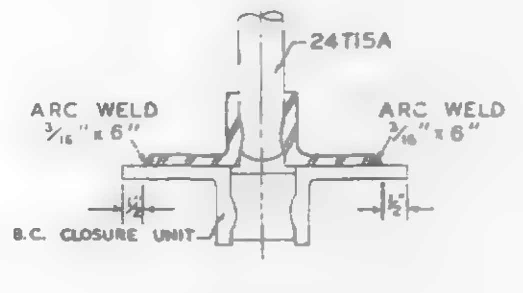
ELEVATION AT ADDED STRUT

ELEVATION AT Es END

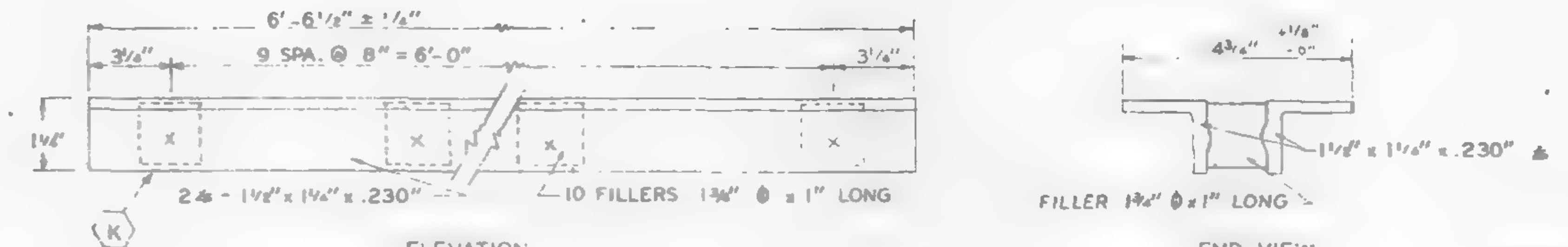
ALL PANEL POINTS RESISTANCE WELDED (x).
ALL WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET CD204 FOR B.C. CLOSURE CONNECTION DETAIL.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ ⅛"
DESIGN DEPTH	24"	± ¼"
PANEL "K"	3'-4"	± ⅛"
PANEL "K1"	3'-2⅛"	± ¼"
WEB DEPTH	23⅞"	± ¼"
OVERALL LENGTH	19'-11"	± ⅜"



SECTION A-A



ELEVATION

END VIEW

B.C. CLOSURE UNIT

REF DWG	
7-AB2-1	10-4-68
7-AB2-14	10-4-68
7-AB4-15.1	10-4-68
7-AB4-16 & 18	7-22-68
7-AB4-19 & 38	10-15-68
7-AB4-28 & 41	7-22-68

MATERIAL LIST FOR B.C. CLOSURE UNIT		
PCS.	SIZE	LENGTH
2	1½"x1¼"x.23" ∠s	6'-6½"
10	1¾" Ø FILLERS	1"

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		
24T15A-1911	6	A242	1½"x1¼"x.275"	19'-11"	7	A242	1½"x1¼"x.230"	14'-5½"	3	A242	.98	17'-11¼"	3½K @ 3'-4" = 11'-8"	12	A242	.98	1'-10⅞"	1		

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK.	TYPE STEEL	DIA.	PCS.	LENGTH
	24T15A-1911	1'-6¼"	2	A242	.98	1'-11¾"	4	A242	.98	1	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES				EXL	DIAGONAL "T" STRUT				VERTICAL "ST1" STRUT				[redacted] STIFFENER MK V7			
		MK	TYPE STEEL	CHORD SIZE	LENGTH "Y"		MK.	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	NO. REQ'D
	24T15A-1911	9	A242	1¼"x1¼"x.275"	8'-8"	6'-7½"	—	—	—	—	2	A242	.98	1'-11¾"	A242	.98	2⅞"	10

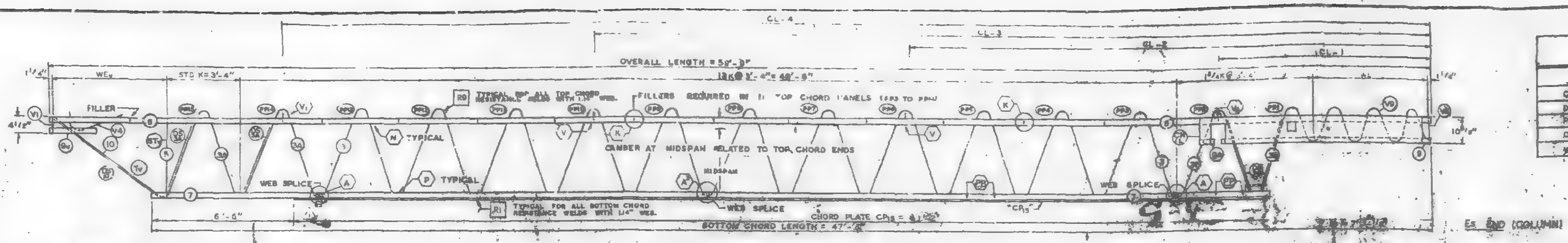
NO.	DATE	REVISION	BY

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
[redacted]
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T15A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO: 7-AB2-14 PLATE
APPROVED FOR FABRICATION BY [signature] FOR PONYA — DATE 11/7/68	DRAWN BY [initials] DATE OCT. 28, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR — DATE	CHECKED BY: T.M.CHURA DATE OCT. 28, 1968
DETAILED LACLEDE STEEL CO.	FABRICATION CONT. NO W.T.C. 221 — SHEET BT 215

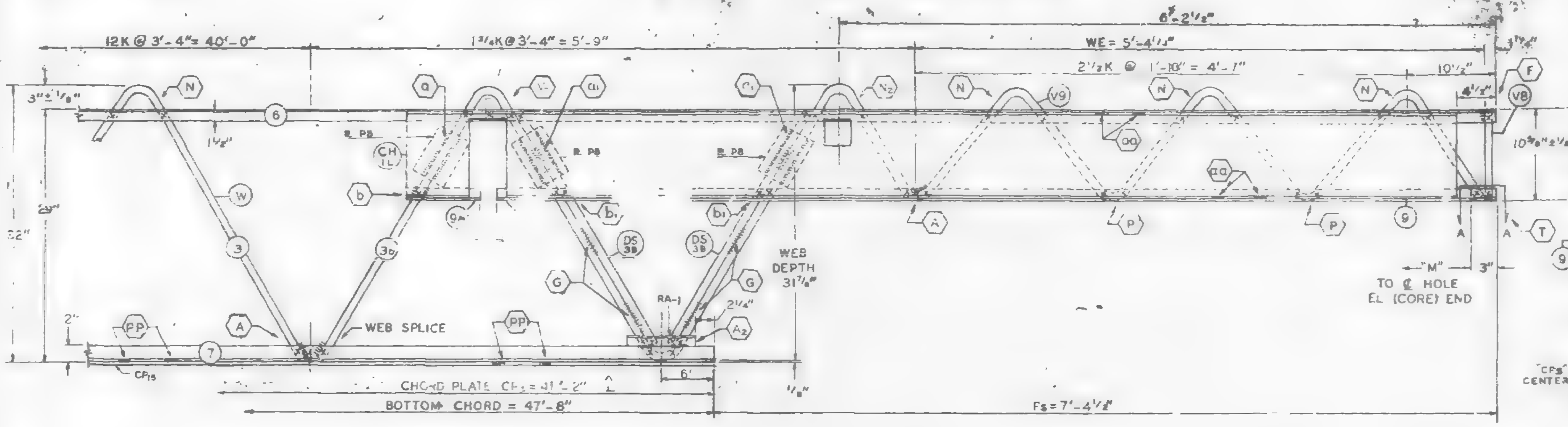


EL END (CORE)

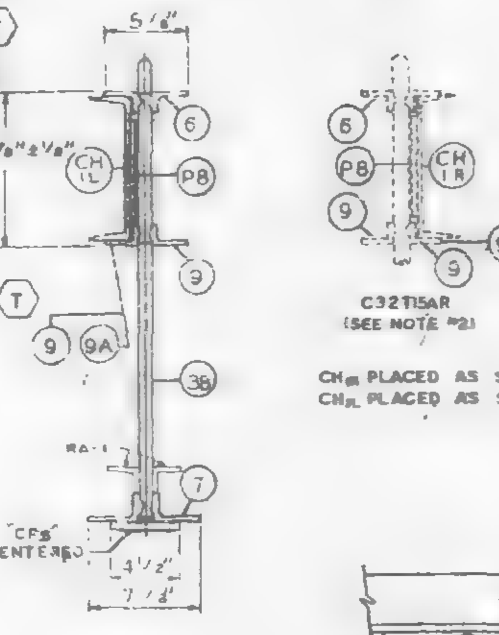
TRUSS ELEVATION

ES END (COLUMN)

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	2 1/16"	± 3/8"
DESIGN DEPTH	29"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
OVERALL LENGTH	59'-9"	± 3/8"
WEB DEPTH	31 7/8"	± 1/4"



ES END (COLUMN)



C32T15AR (SEE NOTE #2)

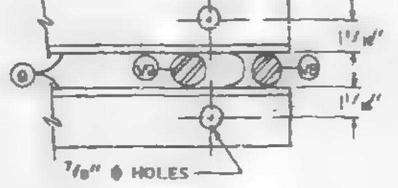
CHIR PLACED AS SHOWN FOR C32T15AR.
CHIL PLACED AS SHOWN FOR C32T15AL.

C32T15AL (SEE NOTE #2)

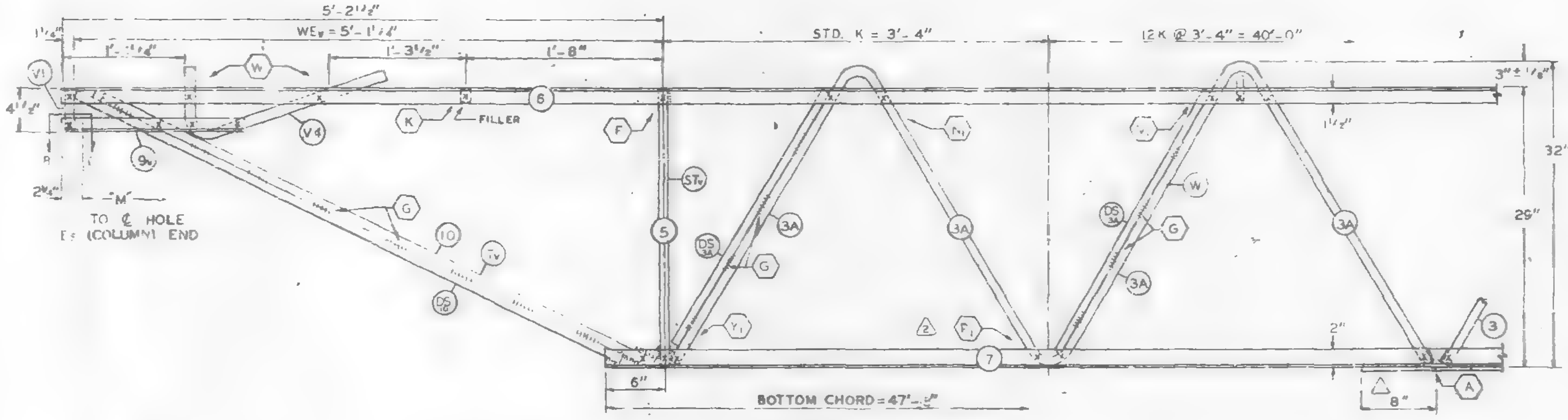
ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., [R1].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.

NOTE 2

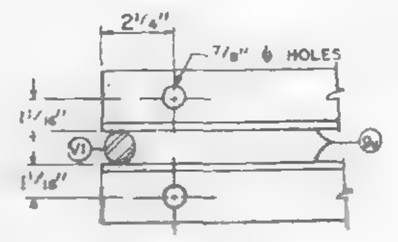
ALL DETAILS & ELEVATIONS SHOWN FOR C32T15AL TRUSSES ARE APPLICABLE TO C32T15AR TRUSSES WITH CHANNEL CHIR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.



SECTION A-A



EL END (CORE)



SECTION B-B

NO.	DATE	REVISION	BY
2	11-7-68	AS NOTED	G.D.C.
1	10-31-68	CP_{15}	LWH

REF. DRWG. (2)

7-AB1-18	10-4-68
7-AB1-54	10-[illegible]-68
7-AB1-53	7-22-68
7-AB3-2	1-3-68
7-AB3-24	8-15-68
7-AB4-17 & 17.2	10-4-68
SA-124	10-11-68
7-AB1-55	10-15-68

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	BOTTOM CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	MAIN WEB "W" MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	FILLER NO.	DIA.	"M" C/C HOLES	CHORD PLATE (1) MK.	TYPE STEEL	SIZE	LENGTH	CONNECTION FILLER NO.	DIA	LENGTH	CHANNEL PLATES MK.	TYPE STEEL	PCS.	SIZE	LENGTH	REINFORCING ANGLES MK.	TYPE STEEL	PCS.	SIZE	LENGTH
24T15AL-599	6	A242	2"x1 1/2"x.37"	59'-[illegible]"	7	A36	3"x2"x.37"	47'-8"	3 3A 3B	A242 A242 A242	1.14" 1.14" 1.14"	[illegible] [illegible] 10'-7 5/8"	11K@3'-4"=36'-8" 2K@3'-4"=6'-8" 1 3/4K@3'-4"=5'-9"	12	1.14	59'-3 3/4"	CP_{15}	A36	4"x1.38"	41'-2"	4	1.14	3"	P8	A36	3	[illegible]	5 1/2"	RA1	A36	2	3"x2"x.37"	7 1/2"

COLUMN END

Es END TRUSS DESIGNATION	BEARING ANGLES MK.	TYPE STEEL	CHORD SIZE	PCS.	LENGTH	WE	DOUBLE STRUT MK.	TYPE STEEL	DIA	LENGTH (2 REQ'D)	CHORD PLATE MK.	TYPE STEEL	SIZE	LENGTH	END STIFFENER MK. V8 TYPE STEEL	DIA.	LENGTH	MK. V9 TYPE STEEL	DIA.	LENGTH	MK. V10 TYPE STEEL	DIA.	LENGTH	CHANNEL (SEE NOTE #2) MK.	TYPE STEEL	CHANNEL SIZE	LENGTH
24T15AL-599	9 9A	A242 A242	2"x1 1/2"x.25" 2"x1 1/2"x.25"	2 1	[illegible] [illegible]	5'-4 1/4"	DS_{3B}	A242	1.14	2'-6 3/4"	-	—	—	—	A242	1.14	10 1/2"	A242	1.14	8'-3 7/8"	—	—	—	CHIL CHIR	A36 A36	10 C 30 10 C 30	10'-0" 10'-0"

CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS. TRUSS				
CL-1	CL-2	CL-3	CL-4	Fs
9'-6 1/2"	22'-10 1/2"	36'-2 1/2"	49'-6 1/2"	7'-4 1/2"

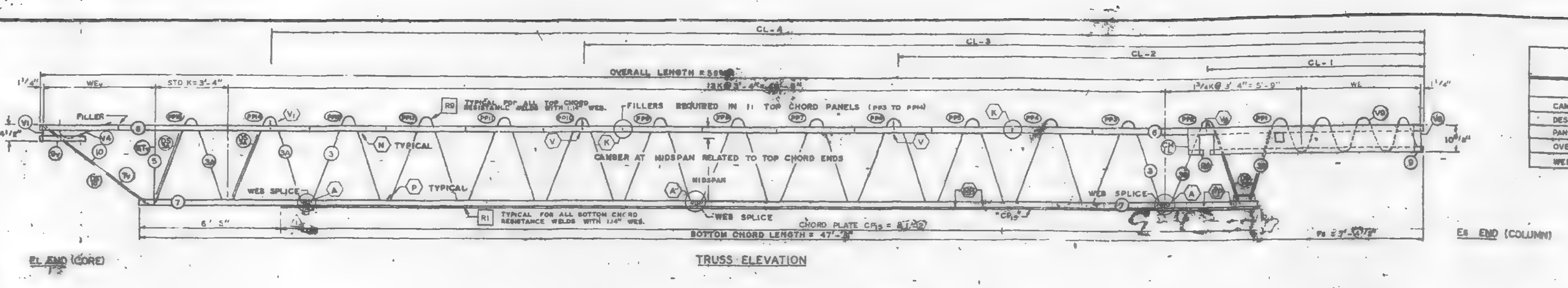
CORE END

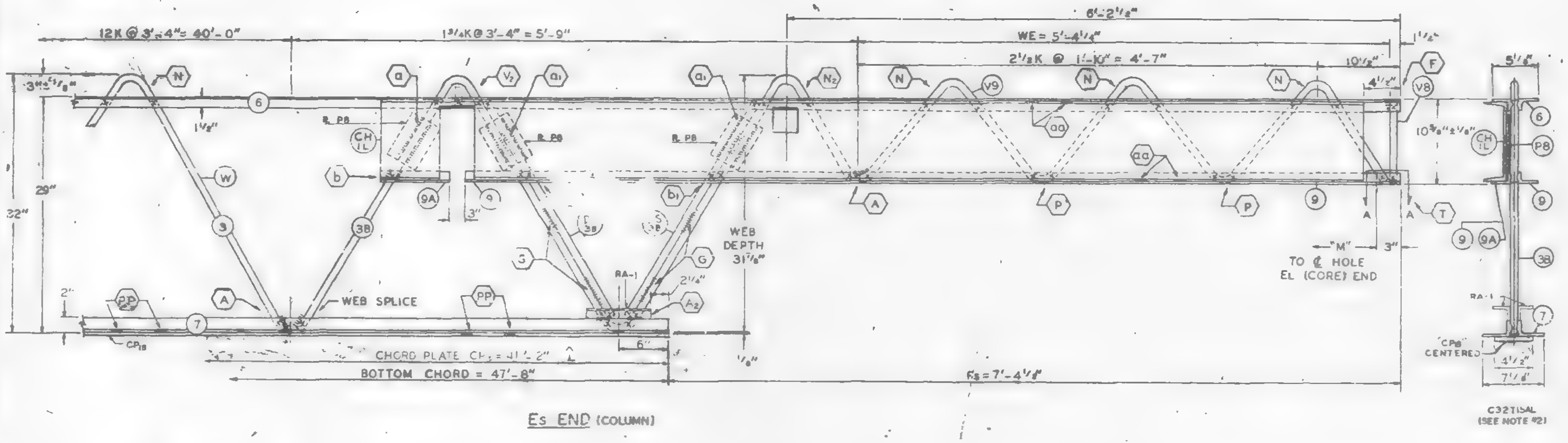
EL END TRUSS DESIGNATION	BEARING ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	WEv	DIAGONAL "Tv" STRUT MK.	TYPE STEEL	DIA.	LENGTH	VERTICAL "STv" STRUT MK.	TYPE STEEL	DIA.	LENGTH	END STIFFENER MK. V1 TYPE STEEL	DIA.	LENGTH	MK. V2 TYPE STEEL	DIA.	LENGTH	MK. V4 TYPE STEEL	DIA.	LENGTH	DOUBLE STRUT MK.	TYPE STEEL	DIA.	LENGTH	DOUBLE STRUT MK.	TYPE STEEL	DIA.	LENGTH (2 REQ'D)	DOUBLE STRUT MK.	TYPE STEEL	DIA	LENGTH
24T15AL-599	9v	A242	2"x1 1/2"x.25"	1'-7"	5'-1 1/4"	10	A242	1.14	5'-4 7/8"	5	A242	1.14	2'-4 7/8"	A242	1.14	4 3/8"	—	—	—	A242	1.14	2'-2 1/2"	DS_{10}	A242	.75	5'-4 7/8"	DS_{3A}	A242	.75	2'-6 3/4"	—	—	—	—

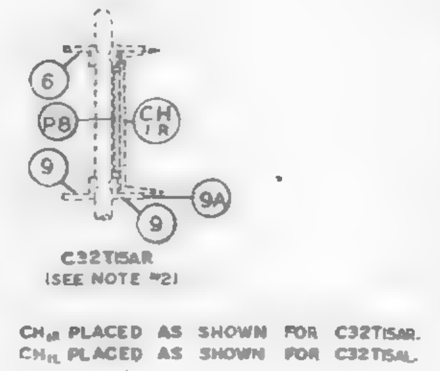
FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER — N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

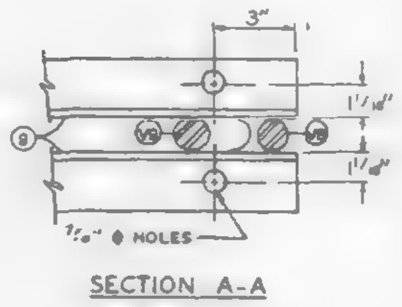
FLOOR TRUSS C32T15AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

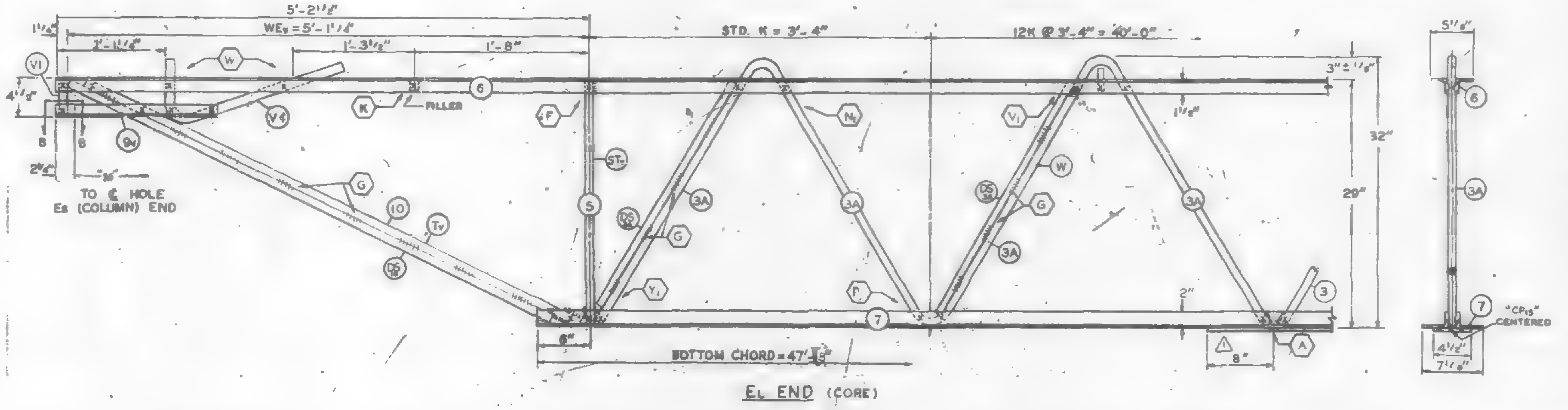
FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB1-14	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A.	DATE 11/18/68	DRAWN BY: gdc DATE OCT. 1, 1968	
APPROVED FOR FABRICATION BY: [signature] FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE OCT. 1, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER		FABRICATION CONT. NO W.T.C. 221	SHEET NO. ST 215AL

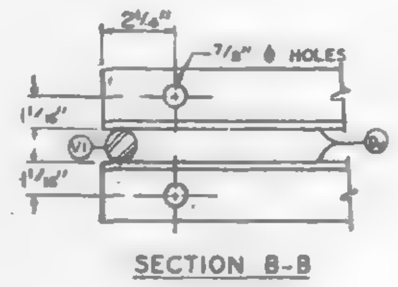












FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	2 1/16"	± 3/8"
DESIGN DEPTH	29"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
OVERALL LENGTH	59'-9"	± 3/8"
WEB DEPTH	31 7/8"	± 1/4"

ALL PANEL POINTS RESISTANCE WELDED. (X1).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R1].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T15AL TRUSSES ARE APPLICABLE TO C32T15AR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

NO.	DATE	REVISION	BY
1	10-31-68	CP15	LWH

REF. DRWG.

7-AB1-16	8-15-68
7-AB1-54	8-15-68
7-AB1-53 & 55	7-22-68
7-AB3-2	1-3-68
7-AB3-24	8-15-68
7-AB4-17 & 17.2	8-15-68
SA-124	8-1-68

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					FILLER		"M" C/C HOLES	CHORD PLATE 1				CONNECTION FILLER			CHANNEL PLATES					REINFORCING ANGLES				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA	LENGTH	NO. OF K	NO.	DIA.		MK.	TYPE STEEL	SIZE	LENGTH	NO.	DIA.	LENGTH	MK	TYPE STEEL	PCS.	SIZE	LENGTH	MK.	TYPE STEEL	PCS.	SIZE	LENGTH
24T15AL-599	6	A242	2"x1 1/2"x.37"	59'-[illegible]"	7	A36	3"x2"x.37"	47'-8"	3 / 3A / 3B	A242 / A242 / A242	1.14 / 1.14 / 1.14	[illegible] / [illegible] / 10'-7 3/8"	11K @ 3'-4" = [illegible] / [illegible] / 1 3/4K @ 3'-4" = 5'-9"	12	1.14	59'-3 3/4"	CP15	A36	[illegible]	41'-2"	4	1.14	3"	P8	A36	3	[illegible]	5 1/2"	RA1	A36	2	3"x2"x.37	7 1/2"

COLUMN END

Es END	TRUSS DESIGNATION	BEARING ANGLES					WE	DOUBLE STRUT				CHORD PLATE				END STIFFENER MK. V8			END STIFFENER MK. V9			END STIFFENER MK. V10			CHANNEL (SEE NOTE #2)			
		MK.	TYPE STEEL	CHORD SIZE	PCS.	LENGTH		MK.	TYPE STEEL	DIA	LENGTH (2 REQ'D)	MK.	TYPE STEEL	SIZE	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHANNEL SIZE	LENGTH
	24T15AL-599	9 / 9A	A242 / A242	2"x1 1/2"x.25" / [illegible]	2 / 1	8'-5" / [illegible]	5'-4 1/4"	DS	A242	1.14	2'-6 3/4"	—	—	—	—	A242	1.14	10 1/2"	A242	1.14	8'-3 7/8"	—	—	—	CH1L / CH1R	A36 / A36	10 [30 / 10 [30	10'-0" / 10'-0"

CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS. TRUSS				
CL-1	CL-2	CL-3	CL-4	Fs
9'-6 1/2"	22'-10 1/2"	36'-2 1/2"	49'-6 1/2"	7'-4 1/4"

END

EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "Tv" STRUT				VERTICAL "STv" STRUT				END STIFFENER MK. V1			END STIFFENER MK. V2			END STIFFENER MK. V4			DOUBLE STRUT				DOUBLE STRUT				DOUBLE STRUT			
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	DIA.	LENGTH (2 REQ'D)	MK.	TYPE STEEL	DIA	LENGTH
	24T15AL-599	9v	A242	2"x1 1/2"x.25"	1'-7"	5'-1 1/4"	10	A242	1.14	5'-4 7/8"	5	A242	1.14	2'-4 3/4"	A242	1.14	4 3/8"	—	—	—	A242	1.14	2'-2 1/2"	DS10	A242	.75	5'-4 7/8"	DS3A	A242	.75	2'-6 3/4"	—	—	—	—

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER -, N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

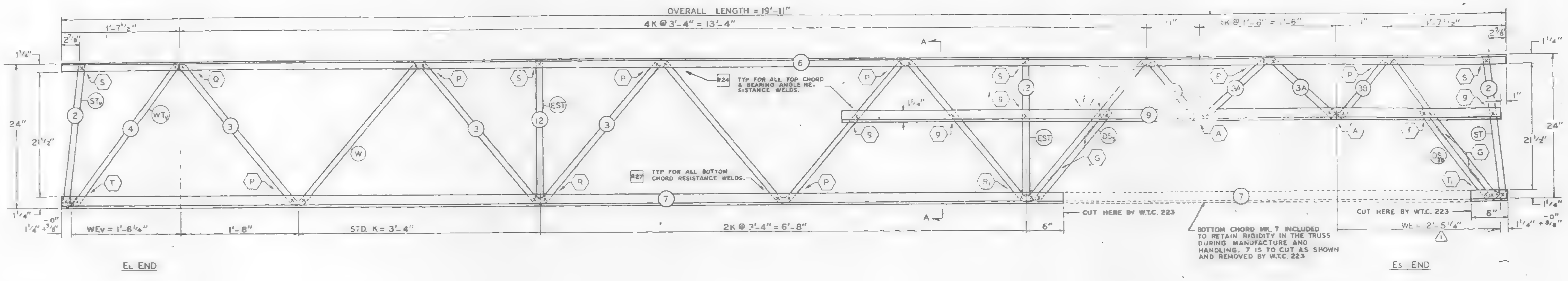
FLOOR TRUSS C32T15AL x 59'-9" LONG (SEE NOTE #2)

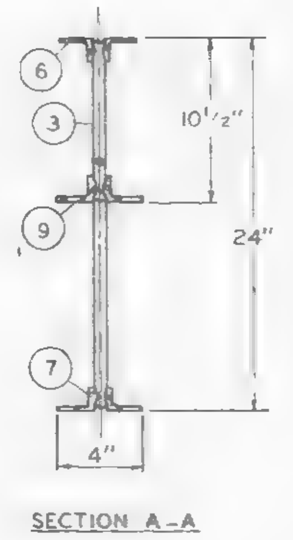
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB1-14	PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE 11/7/68	DRAWN BY gdc DATE OCT 1, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY T.M CHURA DATE OCT. 1, 1968	IN CHARGE OF PROD DEV.
DETAILED BY: A CARL WEBER		FABRICATION CONT NO W.T.C 221	SHEET NO. ST 215AL

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3 / 8"
DESIGN DEPTH	24"	± 1 / 4"
PANEL "K"	3'-4"	± 1 / 8"
WEB DEPTH	23 7/8"	± 1 / 4"
OVERALL LENGTH	19'-11"	± 3 / 8"





SECTION A-A

NO.	DATE	REVISION	BY
1	5-15-69	AS NOTED	G.D.C.

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. (IIIIII).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (A).
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST 291 & ST 293.
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R27.

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH
24T16A - 1911	6	A242	1 1/2"x1 1/4"x.275"	19'-11"	7	A242	1 1/2"x1 1/4"x.23"	19'-11"

TRUSS DESIGNATION	MAIN WEB "W"					TRUSS DATA	
	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K		
24T16A - 1911	3	A242	.98	21'-8 3/8"	4 8K @ 3'-4" = 14'-3"		
	3A	A242	.98	2'-4 3/4"	1K @ 1'-6" = 1'-6"		
	3B	A242	.98	3'-8 1/4"	5/8K @ 3'-4" = 2'-6[illegible]		

TRUSS DESIGNATION	VERTICAL "EST" STRUT					CHORD PLATE				DOUBLE STRUT			
	MK.	TYPE STEEL	PCS.	DIA.	LENGTH	MK.	TYPE STEEL	SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
24T16A - 1911	12	A242	2	.98	1'-10 7/8"	—	—	—	—	DS_3	A242	.98	1'-6 3/4"

Es END	TRUSS DESIGNATION	INCLINED "ST" STRUT				WE	BEARING ANGLES				DOUBLE STRUT			
		MK.	TYPE STEEL	DIA.	LENGTH	1 (revision)	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
	24T16A - 1911	2	A242	.98	1'-11 3/4"	2'-5 1/4"	9	A242	1 1/2"x1 1/4"x.275"	9'-1 1/2"	DS_{3B}	A242	.98	1'-6 3/4"

EL END	TRUSS DESIGNATION	INCLINED "STv" STRUT				WE_v	WEB "WT_v"			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH
	24T16A - 1911	2	A242	.98	1'-11 3/4"	1'-6 1/4"	4	A242	.98	2'-5 1/2"

REF. DRWGS.

7-AB2-14	10-4-68
7-AB3-30	10-4-68
7-AB3-31	10-4-68
7-AB3-24	8-15-68
7-AB4-17.7	10-4-68
7-AB4-17.1	10-4-68
SA-124	1-6-[illegible]
7-AB2-1	1-6-68

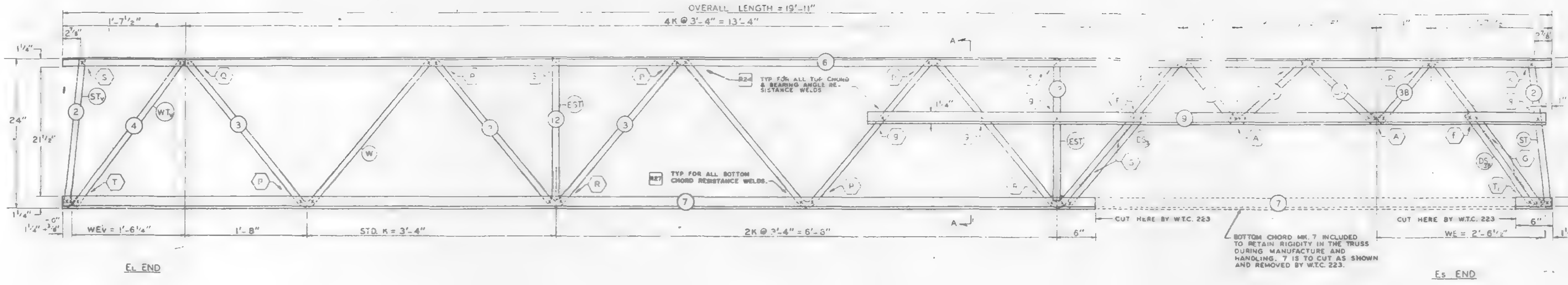
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

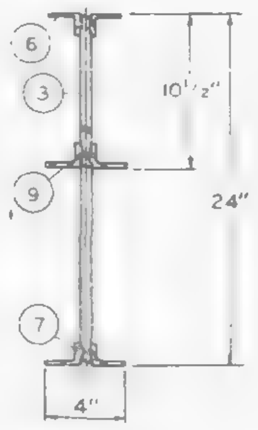
BRIDGING TRUSS 24T16A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-14	PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 6/4/69	DRAWN BY: gdc DATE APRIL 14, 1969	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE APRIL 14, 1969	IN CHARGE OF PROD. DEV.
[redacted] DETAILED BY A CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. BT-216 A

FABRICATION REQUIREMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3 / 8"
DESIGN DEPTH	24"	± 1 / 4"
PANEL "K"	3'-4"	± 1 / 4"
WEB DEPTH	23 7/8"	± 1 / 4"
OVERALL LENGTH	19'-11"	± 3 / 8"





SECTION A-A

NO.	DATE	REVISION	BY

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (IIIIII).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (A).
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST 291 & ST 293.
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R27.

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

VOID

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					TRUSS DATA		VERTICAL "EST" STRUT					CHORD PLATE				DOUBLE STRUT			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	NO. OF K			MK	TYPE STEEL	PCS.	DIA	LENGTH	MK	TYPE STEEL	SIZE	LENGTH	MK.	TYPE STEEL	DIA	LENGTH
24T16A – 1911	6	A242	1 1/2"x1 1/4"x.275"	19'-11"	7	A242	1 1/2"x1 1/4"x.23"	19'-11"	3 3A 3B	A242 A242 A242	.98 .98 .98	[illegible] 2'-4 3/4" 3'-8 1/4"	4 K @ 3'-4" = [illegible] 1K @ 1'-8" = 1'-8" [illegible] K @ 3'-4" = 2'-6 1/2"			12	A242	2	.98	1'-10 7/8"	—	—	—	—	DS_3	A242	.98	1'-6 3/4"

Es END	TRUSS DESIGNATION	INCLINED "ST" STRUT				WE	BEARING ANGLES				DOUBLE STRUT			
		MK	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
	24T16A – 1911	2	A242	.98	1'-11 3/4"	2'-6 1/2"	9	A242	1 1/2"x1 1/4"x.275"	9'-1 1/2"	DS_{3E}	A242	.98	1'-6 3/4"

EL END	TRUSS DESIGNATION	INCLINED "STv" STRUT				WEv	WEB "WTv"			
		MK	TYPE STEEL	DIA	LENGTH		MK	TYPE STEEL	DIA.	LENGTH
	24T16A – 1911	2	A242	.98	1'-11 3/4"	1'-6 1/4"	4	A242	.98	2'-5 1/2"

REF. DRWGS.

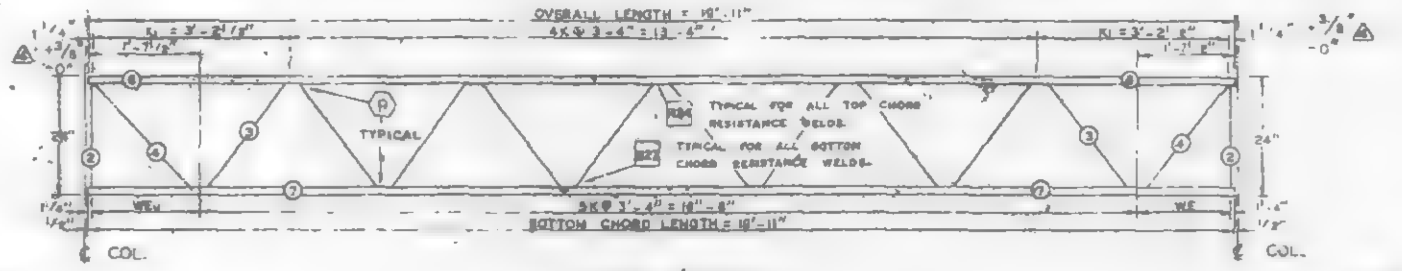
7-AB2-14	10-4-68
7-AB3-30	10-4-68
7-AB3-31	10-4-68
7-AB3-24	8-15-68
7-AB4-17.7	10-4-68
7-AB4-17.1	10-4-68
SA-124	1-6-69
7-AB2-1	1-6-69

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

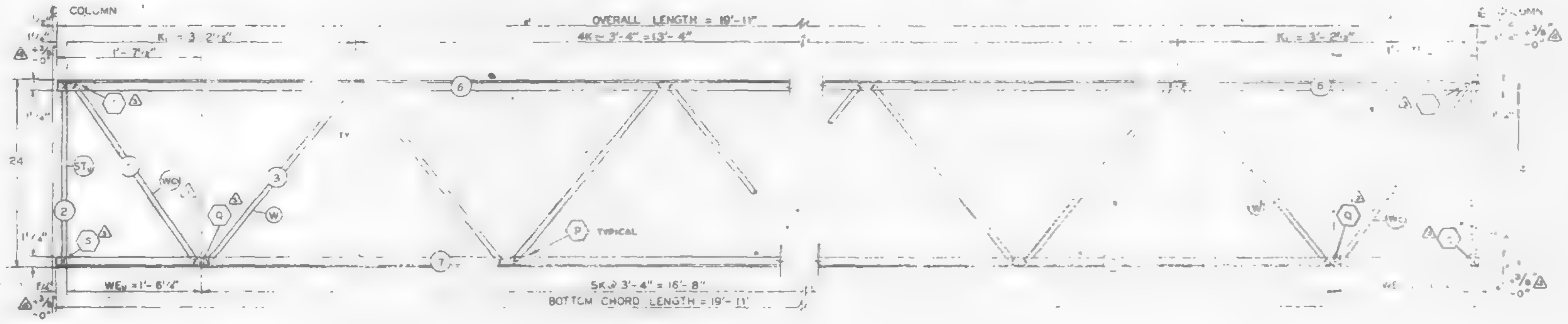
BRIDGING TRUSS 24T16A x 19'-11" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-14	PLATE
RELEASED FOR FABRICATION BY FOR P.O.N.Y.A.	DATE	DRAWN BY gdc DATE APRIL 14, 1969	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE APRIL 14, 1969	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. BT 216 A



TRUSS ELEVATION



E END ELEVATION

E END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL K	3'-4"	± 1/4"
PANEL K₁	3'-2½"	± 1/4"
WEB DEPTH	23⅛"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (*). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. WELD DETAILS SHOWN ON SHEETS ST 290

LETTERS IN HEXAGONS INDICATE WELD DETAILS, ie. (A). NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R24

REF. DWGS.

7-AB2-1	4-1-68
7-AB2-10	4-15-68
7-AB3-11	5-10-68
7-AB4-16 & 18	5-6-68
7-AB4-28 & 41	1-5-68
7-AB4-38	4-1-68

PAINT
LACLEDE [illegible]
RED NO. [illegible]

TRUSS DESIGNATION	TOP CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	BOTTOM CHORD TWO ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	MAIN WEB "W" MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	VERTICAL "EST" STRUT MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED	TRUSS DATA		FILLER NO.	DIA.
24T16 - 1911	6	A242	1¼"x1¼"x.275	19'-11"	7	A242	1⅛"x1¼"x.23	19'-11"	3	A242	.98	28'-7¼"	5K@ 3'-4" = 16'-8"	—	—	—	—	—			—	—

E END TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT MK.	TYPE STEEL	DIA.	LENGTH	WEB "WC" MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T16 - 1911	1'-8¼"	2	A242	.98	1'-11¾"	4	A242	1	.98	2'-5⅛"

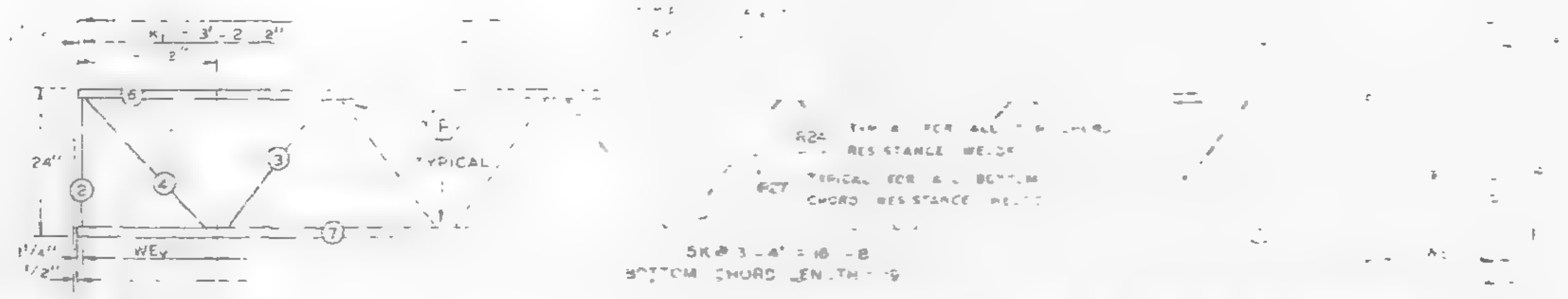
E END TRUSS DESIGNATION	BEARING ANGLES MK.	TYPE STEEL	CHORD SIZE	LENGTH	WE	DIAGONAL "T" STRUT MK.	TYPE STEEL	DIA.	LENGTH	VERTICAL "ST" STRUT MK.	TYPE STEEL	DIA.	LENGTH	END STIFFENER TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	WEB "WC" MK.	TYPE STEEL	PCS.	DIA.	LENGTH
24T16 - 1911	—	—	—	—	1'-8¼"	—	—	—	—	2	A242	.98	1'-11¾"	—	—	—	—	—	—	4	A242	1	.98	2'-5⅛"

NO.	DATE	REVISION	BY
4	9-6-68	END DIST. (2)	TMC
3	7-8-68	AS NOTED	TMC
2	7-3-68	MAIN WEB	TMC
1	6-28-68	REF. DRWG. WCV	TMC

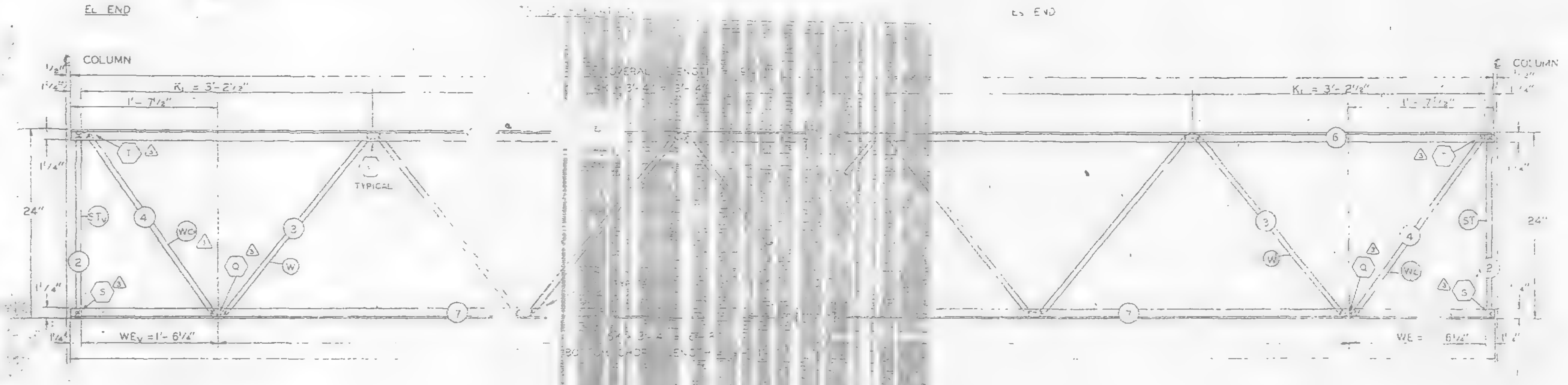
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T16 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON ILLINOIS
DESIGN DRAWING NO. 7-AB2-10 PLATE
APPROVED FOR FABRICATION FOR PONYA DATE 9/10/68
DRAWN BY [illegible] DATE MAY 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.C. DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY LACLEDE STEEL CO.
FABRICATION CONT. NO. WTC 221
SHEET NO. BT21



FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K_1"	3'-2½"	± 1/4"
WEB DEPTH	23⅞"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"



EL END ELEVATION

ES END ELEVATION

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST 290
AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R24.

REF. DWGS.

7-A82-1	4-1-68
7-A82-10	4-15-68
7-A83-11	5-10-68 △1
7-A84-16 & 18	5-6-68 △1
7-A84-28 & 41	[illegible]-3-68
7-A84-38	4-1-68

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
[illegible]	6	A242	1½"x1¼"x.275"	19'-11"	7	A242	1½"x1¼"x.23	[illegible]	3	A242	.98	25'-7¼"	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

ES END	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "WC"				
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS	DIA	LENGTH
	24T16 - 1911	1'-6¼"	2	A242	.98	1'-11¾"	4	A242	1	.98	2'-5½"

EL END	TRUSS DESIGNATION	BEARING ANGLES				WE_V	DIAGONAL "T" STRUT				VERTICAL "ST_V" STRUT				END STIFFENER MK. VS			END STIFFENER MK. VS			WEB "WCV"				
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T16 - 1911	—	—	—	—	1'-6½"	—	—	—	—	2	A242	.98	1'-11¾"	—	—	—	—		—	4	A242	1	.98	2'-5½"

NO	DATE	REVISION	BY
△3	7-8-68	AS NOTED	T.M.C.
△2	7-3-68	MAIN WEB	T.M.C.
△1	6-26-68	REF. DRWG. WCV	T.M.C.

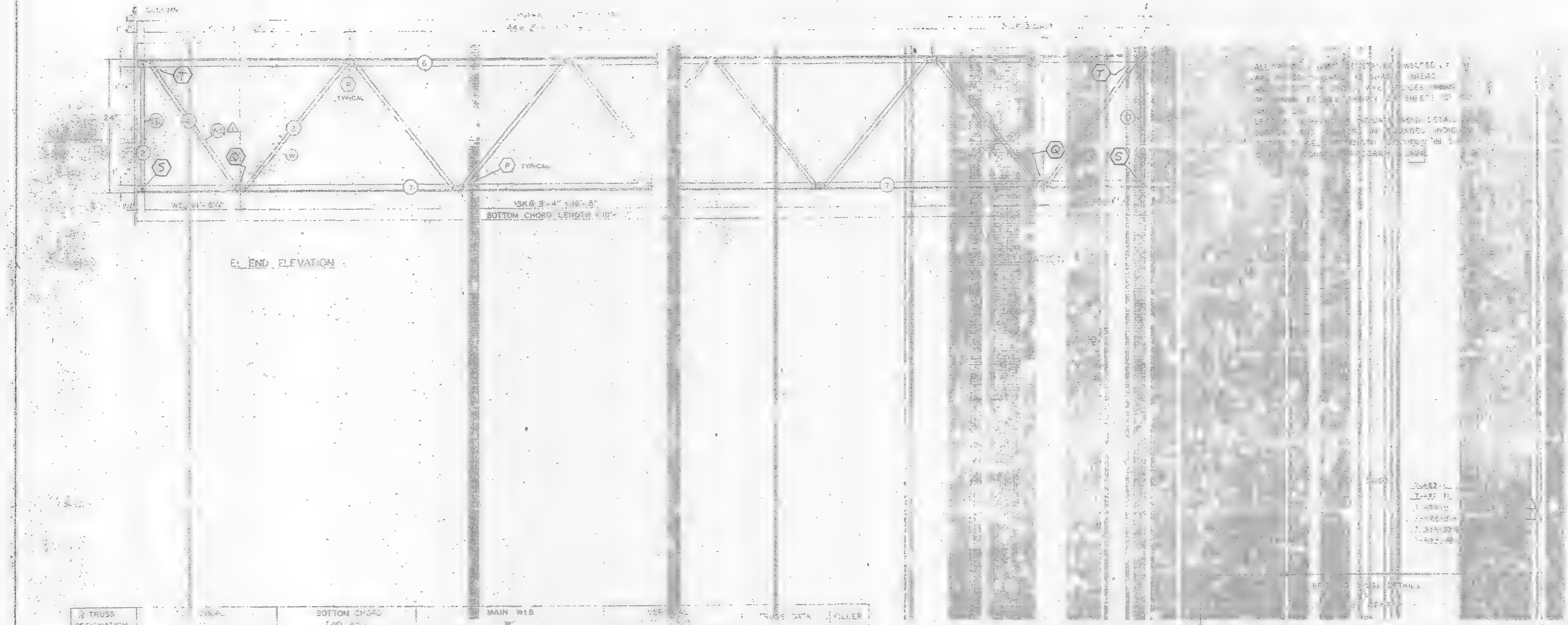
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING [illegible] 24T16 x [illegible] LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATED BY [illegible]LEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO. 7-A82-10 PLATE

APPROVED FOR FABRICATION BY [signature] FOR PONYA DATE 7/9/68
APPROVED FOR FABRICATION BY FABRICATOR DATE
DRAWN BY gdc DATE MAY 24, 1968
CHECKED BY T.M.CHUBA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY [illegible] WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT210



TRUSS DESIGNATION	TOP CHORD	BOTTOM CHORD TWO ANGS NO.	TYPE STEEL	CHORD SIZE	LENGTH	MAIN WEB W NO.	TYPE STEEL	DIA	LENGTH	NO. OF X	VERTICAL	TRUSS DATA	FILLER NO	DIA
24T16-19[illegible]	6 [illegible]	[illegible]	A242	[illegible]	[illegible]	3	A242	.1[illegible]	30'-6½"	5K@3-4 [illegible]				

Es END TRUSS DESIGNATION	END STRUT NO.	TYPE STEEL	DIA	LENGTH	WEB W NO.	TYPE STEEL	PCS	DIA	LENGTH
24T16-191	2	A242	.39	1'-11¾"	4	A242	1	.98	2'-5½"

EL END TRUSS DESIGNATION	BEARING ANGLES NO.	TYPE STEEL	CHORD SIZE	LENGTH	WE	DIAGONAL "T" STRUT NO.	TYPE STEEL	DIA	LENGTH	VERTICAL "ST" STRUT NO.	TYPE STEEL	DIA	LENGTH	END STIFFENER	WEB WCV ⚠1 NO.	TYPE STEEL	PCS	DIA	LENGTH
24T16-191	—	—	—	—	1'-6"	—	—	—	—	2	A242	.8	1'-11¾"	—	4	A24[illegible]	1	.9[illegible]	2'-5"

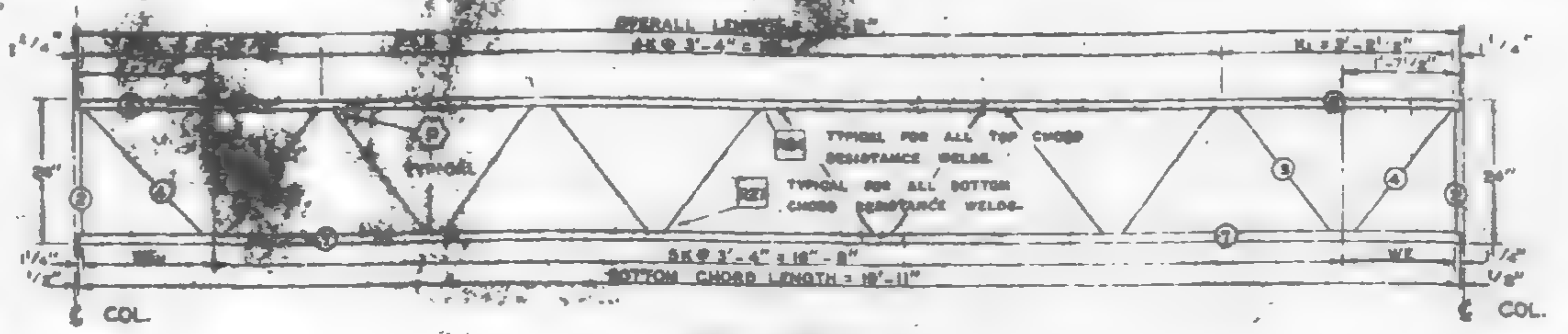
SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
APPROVED
☒ APPROVED AS NOTED
REVISE
REJECTED
7/5/68 SK

⚠1	6-26-68	REF. DRWG. WCV	TMC
NO.	DATE	REVISION	BY

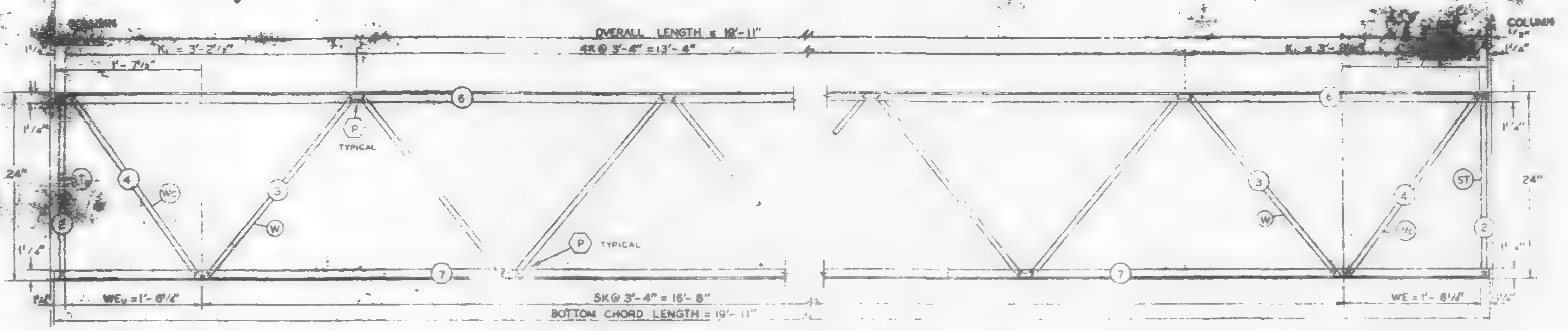
LACLEDE STEEL CO.

CHECKED BY [illegible]

6



TRUSS ELEVATION



EL END ELEVATION

Es END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K₁"	3'-2½"	[illegible]
WEB DEPTH	23⅞"	[illegible]
OVERALL LENGTH	19'-[illegible]	[illegible]

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS [illegible] AT SHADED AREAS AND AT [illegible] WEB SPLICES [illegible] ALL WE[illegible] S SHOWN ON SHEET [illegible] AND [illegible]
LETTERS IN HEXAGONS INDICATE WELD DETAIL [illegible]
LETTERS AND NUMBERS IN SQUARES [illegible] SISTANCE WELD STRENGTH IDENTIFIED IN QUALITY CONTROL PROGRAM, ie. R24

REF. DWGS.
7-AB2-[illegible]
7-AB2-11
7-AB3-[illegible]
7-AB4-18 & [illegible]
7-AB4-28 & [illegible]
7-AB4-38

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T16 - 1911	6	A242	1½" x 1¼" x .27	[illegible]	7	A242	1½" x 1¼" x .23	19'-11"	3	A242	.98	30'-6¼"	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

Es	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "Wc"				
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T16 - 1911	1'-6¼"	2	A242	.98	1'-11¾"	4	A242	1	.98	2'-5½"

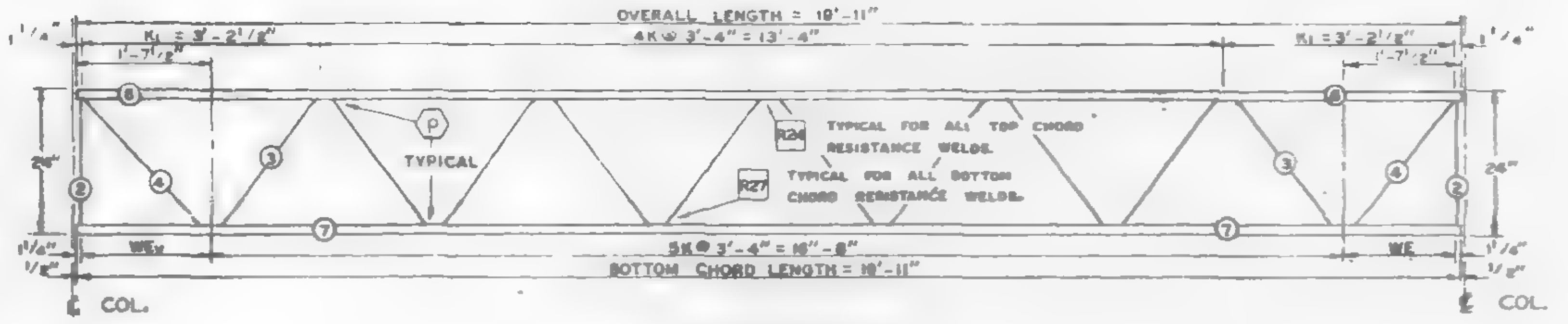
EL END	TRUSS DESIGNATION	BEARING ANGLES				WE	DIAGONAL "T" STRUT				VERTICAL "ST" STRUT				END STIFFENER MK. VS			END STIFFENER MK. VS			WEB "Wc"				
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS	DIA.	LENGTH
	24T16 - 1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.98	1'-11¾"	—	—	—	—	—	—	4	A242	[illegible]	.98	2'-5½"

NO.	DATE	REVISION	BY

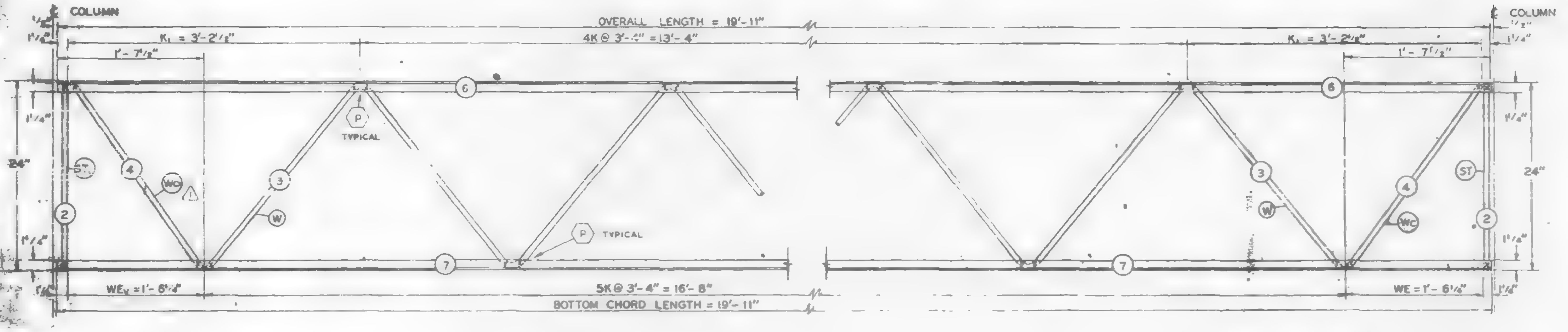
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N[illegible]
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T16 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB2-11
APPROVED FOR FABRICATION FOR PONYA: James White DATE 6/6/68
DRAWN BY: [illegible] DATE MAY 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
LACLEDE STEEL CO.
CHECKED BY: T. MCHUBA DATE MAY 24, 1968
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. WTC 221
[illegible] 2.6



EL END | TRUSS ELEVATION | ES END



EL END ELEVATION

ES END ELEVATION

FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K1"	3'-2½"	± 1/4"
WEB DEPTH	22⅞"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST 290 AND ST 291.
LETTERS IN HEXAGONS INDICATE WELD DETAILS, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R24].

REF. DWGS.

7-A82-1	4-1-68
7-A82-10	4-15-68
7-A83-11	6-10-68
7-A84-16 & 18	5-6-68
7-A84-28 & 41	1-3-68
7-A84-38	4-1-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	MK.	TYPE STEEL	DIA.	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T16 - 1911	6	A242	1½"x1¼"x.25	19'-[illegible]	7	A242	1½"x1¼"x.23	19'-11"	3	A242	.98	23'-7½"	5K @ 3'-4" = 16'-8"	—	—	—	—	—			—	—

Es	TRUSS DESIGNATION	WE	VERTICAL "ST" STRUT				WEB "WC"				
			MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T16 - 1911	1'-6¼"	2	A242	.98	1'-11¾"	4	A242	1	.98	2'-5½"

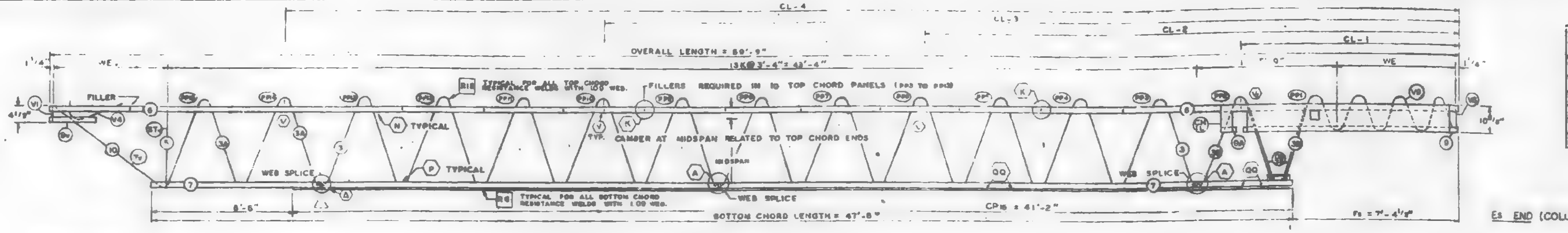
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEL	DIAGONAL "T" STRUT				VERTICAL "STL" STRUT				END STIFFENER MK. VS			END STIFFENER MK. VB			WEB "WCL"				
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	DIA.	LENGTH
	24T16 - 1911	—	—	—	—	1'-6¾"	—	—	—	—	2	A242	.98	1'-11⅝"	—	—	—	—	—	—	4	A242	1	.98	2'-5½"

	DATE	REVISION	BY
2	7-3-68	MAIN WEB	T.M.C.
1	6-26-68	REF. DRWG. #CV	T.M.C.

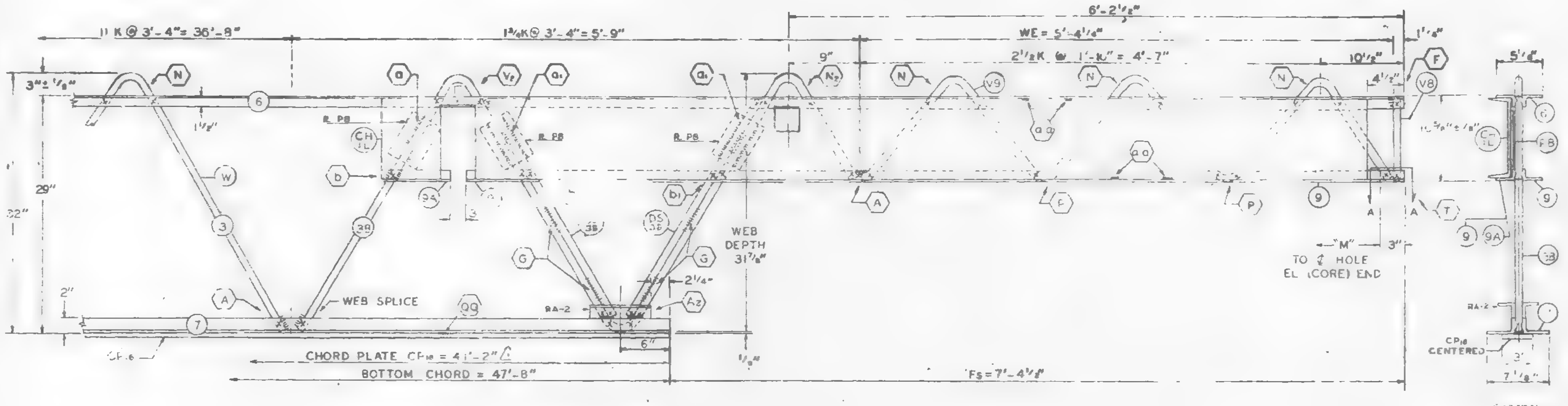
BRIDGING TRUSS DETAILS
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T16 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

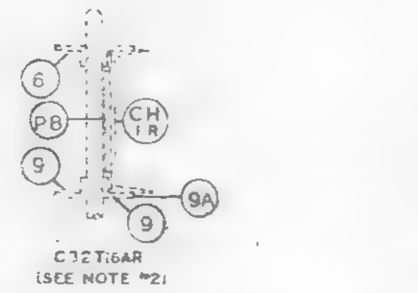
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A82-10 PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE
DRAWN BY: gdc DATE MAY 24, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE MAY 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. BT2K



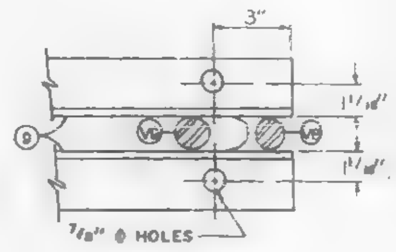
TRUSS ELEVATION



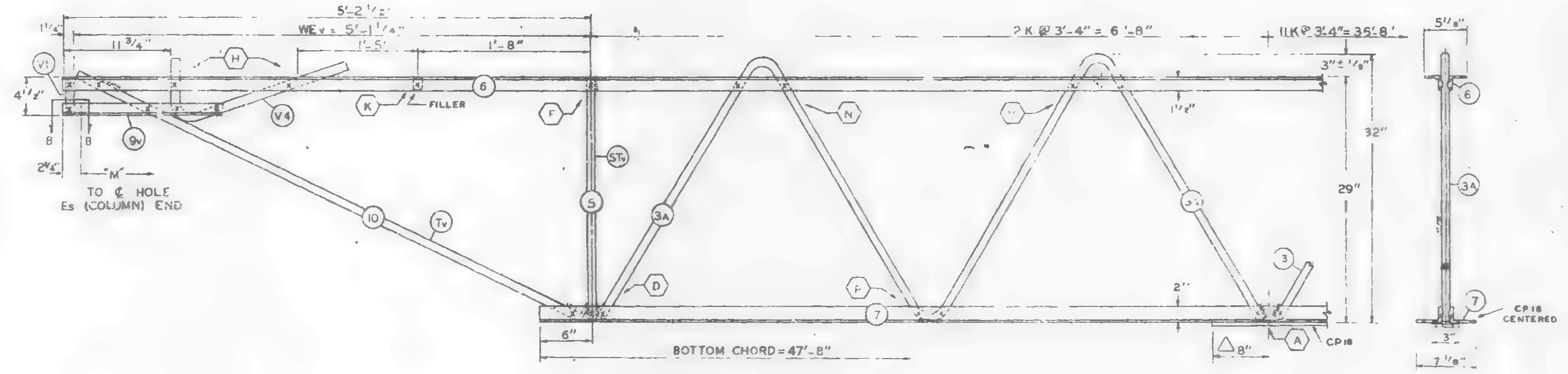
Es END (COLUMN)



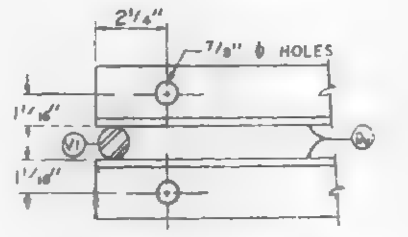
CH_{II} PLACED AS SHOWN FOR C32T16AR
CH_{II} PLACED AS SHOWN FOR C32T16AL



SECTION A-A



EL END (CORE)



SECTION B-B

FABRICATION REQUIREMENTS

	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	2 1/16"	± 3/8"
DESIGN DEPTH	29"	± 1/4"
PANEL K	3'-4"	± 1/4"
OVERALL LENGTH	59'-9"	± 3/8"
WEB DEPTH	31 7/8"	± 1/4"

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [RD].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST29.

ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T16AL TRUSSES ARE APPLICABLE TO C32T16AR TRUSSES WITH CHANNEL CHII AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

NO.	DATE	REVISION	BY
2	11-7-68	AS NOTED	G.D.C.
1	10-31-68	CP16	LWH

2 REF. DRWG.

7-AB1-15	10-4-68
7-AB1-54	10-4-68
7-AB1-53	7-22-68
7-AB3-2	1-3-68
7-AB3-24	8-15-68
7-AB4 17 & 17.2	10-4-68
SA-124	10-11-68
7-AB1-55	10-15-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					FILLER		"M" C/C HOLES	CHORD PLATE 1				CONNECTION FILLERS			CHANNEL PLATES					REINFORCING ANGLES (2 REQ'D)				TRUSS DATA
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	NO.	DIA.		MK.	TYPE STEEL	SIZE	LENGTH	NO.	DIA.	LENGTH	MK.	TYPE STEEL	PCS.	SIZE	LENGTH	MK.	TYPE STEEL	SIZE	LENGTH	
C32T16AL-599	6	A242	2"x1 1/2"x .31	59'-9"	7	A36	3"x 2" x .33"	47'-8"	3	A36	.109	38'-0 1/4"	11 K @ 3'-4" = 36'-8"	11	.109"	59'-3 3/4"	CP16	A36	3"x .25	41'-2"	4	.109	3"	P8	A36	3	4 1/2"x .39	5 1/2"	RA-2	A36	3"x 2" x .33"	7 1/2"	
									3A	A242	.114	12'-5 1/2"	2 K @ 3'-4" = 6'-8"																				
									3B	A242	.114	10'-7 5/8"	1 3/4 K @ 3'-4" = 5'-9"																				

COLUMN END

Es END	TRUSS DESIGNATION	BEARING ANGLES					WE	DOUBLE STRUT				CHORD PLATE				END STIFFENER MK. V8			END STIFFENER MK. V9			END STIFFENER MK. V10			CHANNEL			
		MK.	TYPE STEEL	CHORD SIZE	PCS.	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH (2 REQ'D)	MK.	TYPE STEEL	SIZE	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHANNEL SIZE	LENGTH
	C32T16AL-599	9	A242	2"x 1 1/2"x .25"	2	9'-5"	5'-4 1/4"	DS	A242	1.14	2'-6 3/4"	—	—	—	—	A242	1.14	10 1/2"	A242	1.14	8'-3 7/8"	—	—	—	CHI	A36	10 C 30	10'-0"
		9A	A242	2"x 1 1/2"x .25"	1	8 1/2"																			CHII	A36	10 C 30	10'-0"

CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS. TRUSS				
CL-1	CL-2	CL-3	CL-4	Fs
9'-6 1/2"	22'-10 1/2"	36'-2 1/2"	49'-6 1/2"	7'-4 1/2"

END

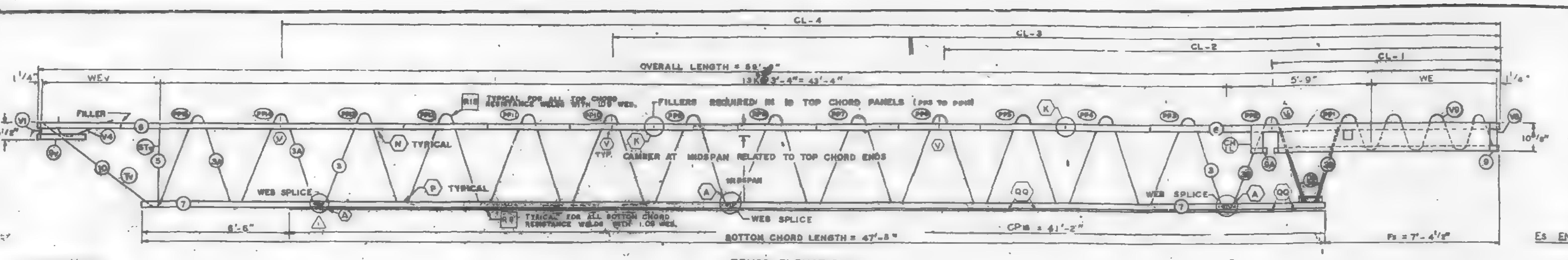
EL END	TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "Tv" STRUT				VERTICAL "STv" STRUT				END STIFFENER MK. V1			END STIFFENER MK. V2			END STIFFENER MK. V4			DOUBLE STRUT				DOUBLE STRUT			
		MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
	C32T16AL-599	9v	A242	2"x 1 1/2"x .25"	1'-7"	5'-1 1/4"	10	A242	1.14	5'-6 1/2"	5	A242	1.14	2'-4 7/8"	A242	1.14	4 3/8"	—	—	—	A242	1.14	2'-2 1/2"	-	—	—	—	—	—	—	—

2

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16AL (SEE NOTE 2) x 59'-9" LONG
WORLD TRADE CENTER TOWERS A & B

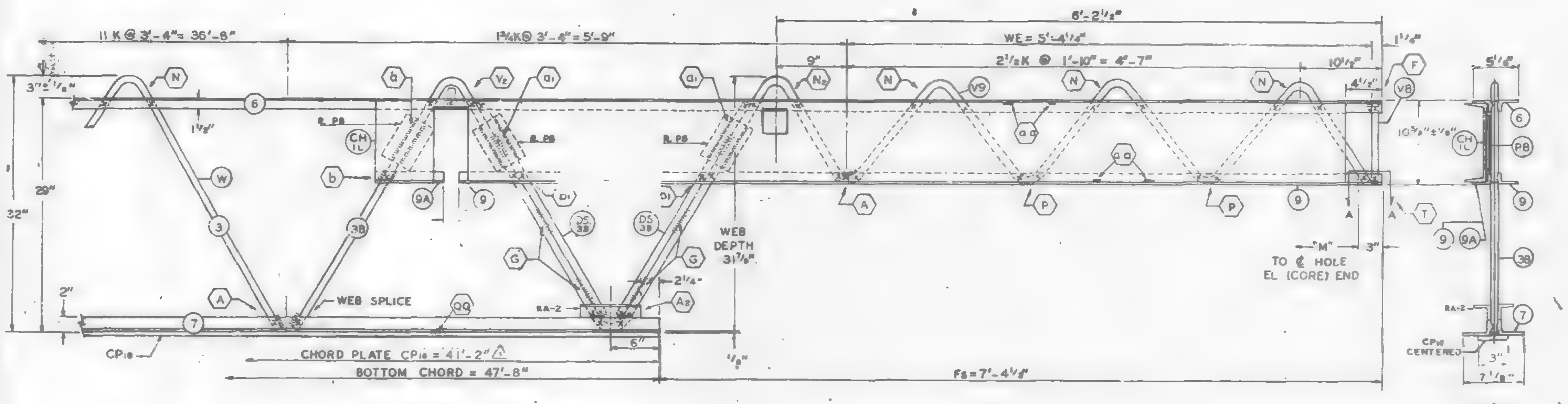
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-15
PLATE
APPROVED FOR FABRICATION BY: [signature] FOR P.O.N.Y.A. DATE 11/18/68
DRAWN BY: gdc DATE OCT. 8, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE OCT 9 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER
FABRICATION CONT. NO. W.T.C 221
SHEET NO. ST 216AL



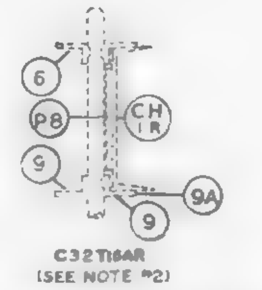
Es END (COLUMN)

EL END (CORE)

TRUSS ELEVATION



Es END (COLUMN)



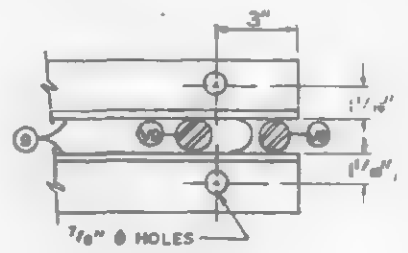
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [RD].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291.

ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

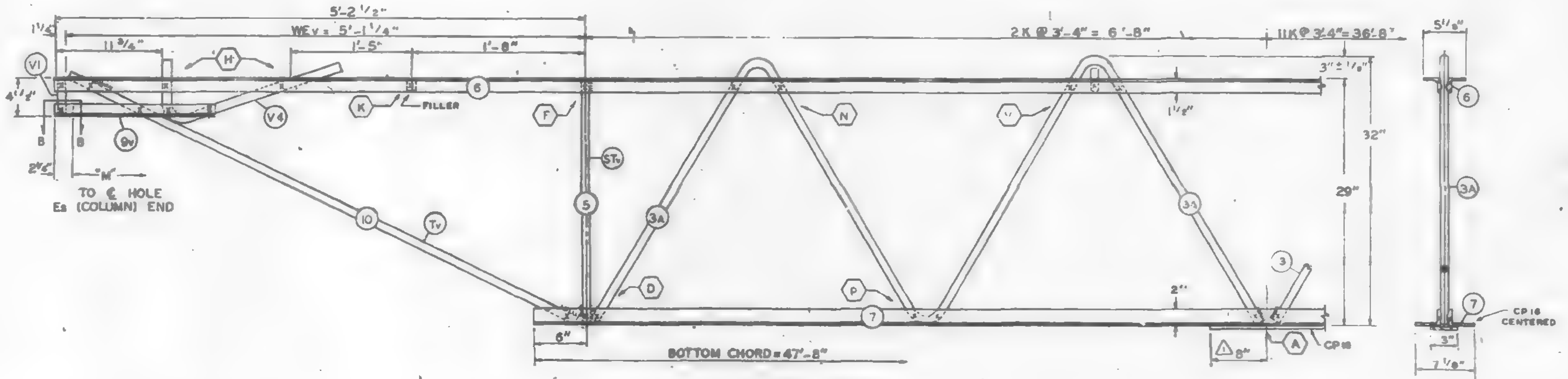
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T16AL TRUSSES ARE APPLICABLE TO C32T16AR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

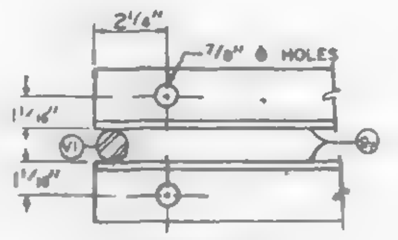
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	2 1/16"	± 3/8"
DESIGN DEPTH	29"	± 1/4"
PANEL K	3'-4"	± 1/4"
OVERALL LENGTH	59'-9"	± 3/8"
WEB DEPTH	31 7/8"	± 1/4"



SECTION A-A



EL END (CORE)



SECTION B-B

NO.	DATE	REVISION	
1	10-31-68	CP16	LWH

REF. DRWG.

7-AB1-15	8-15-68
7-AB1-54	8-15-68
7-AB1-53 & 56	7-22-68
7-AB2-2	1-3-68
7-AB3-24	8-15-68
7-AB4-17 & 17.2	8-15-68
SA-124	8-1-68

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					FILLER		"M" C/C HOLES	CHORD PLATE ⚠1				CONNECTION FILLERS			CHANNEL PLATES					REINFORCING ANGLES (2 REQ'D)				TRUSS DATA	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	NO. OF K	NO.	DIA.		MK.	TYPE STEEL	SIZE	LENGTH	NO	DIA	LENGTH	MK	TYPE STEEL	PCS.	SIZE	LENGTH	MK.	TYPE STEEL	SIZE	LENGTH		
C32T16AL-599	6	A242	2"x1 1/2"x.31	59'-9"	7	A36	3"x2"x.33"	47'-8"	3 3A 3B	A36 A242 A242	1.09 1.14 1.14	[illegible]	[illegible]	11	1.09"	59'-3 3/4"	CP16	A36	3"x 25	41'-2"	4	1.09	3"	P8	A36	3	4 1/2"x.38	5 1/2"	RA-2	A36	3"x 2"x.33"	7 1/8"		

COLUMN END

Es END TRUSS DESIGNATION	BEARING ANGLES					WE	DOUBLE STRUT				CHORD PLATE				END STIFFENER MK. V8			MK. V9			MK. V10			CHANNEL			
	MK.	TYPE STEEL	CHORD SIZE	PCS.	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH (2 REQ'D)	MK.	TYPE STEEL	SIZE	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	CHANNEL SIZE	LENGTH
C32T16AL-599	9 9A	A242 A242	2"x1 1/2"x.25" 2"x1 1/2"x.25"	2 1	9'-5" 8 1/2"	5'-4 1/4"	DS 3B	A242	1.14	2'-6 3/4"	—	—	—	—	A242	1.14	10 1/2"	A242	1.14	8'-3 7/8"	—	—	—	CH1L CH1R	A36 A36	10 ⊏ 30 10 ⊏ 30	10'-0" 10'-0"

CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS. TRUSS				
CL-1	CL-2	CL-3	CL-4	Fs
9'-6 1/2"	22'-10 1/2"	36'-2 1/2"	49'-6 1/2"	7'-4 1/8"

CORE END

EL END TRUSS DESIGNATION	BEARING ANGLES				WEv	DIAGONAL "Tv" STRUT				VERTICAL "STv" STRUT				END STIFFENER MK. V1			MK. V2			MK. V4			DOUBLE STRUT				DOUBLE STRUT			
	MK.	TYPE STEEL	CHORD SIZE	LENGTH		MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH	MK.	TYPE STEEL	DIA.	LENGTH
C32T16AL-599	9v	A242	2"x1 1/2"x .25	1'-7"	5'-1 1/4"	10	A242	1.14	5'-6 1/2"	5	A242	1.14	2'-4 3/4"	A242	1.14	4 3/8"	—	—	—	A242	1.14	2'-2 1/2"	-	—	—	—	—	—	—	—

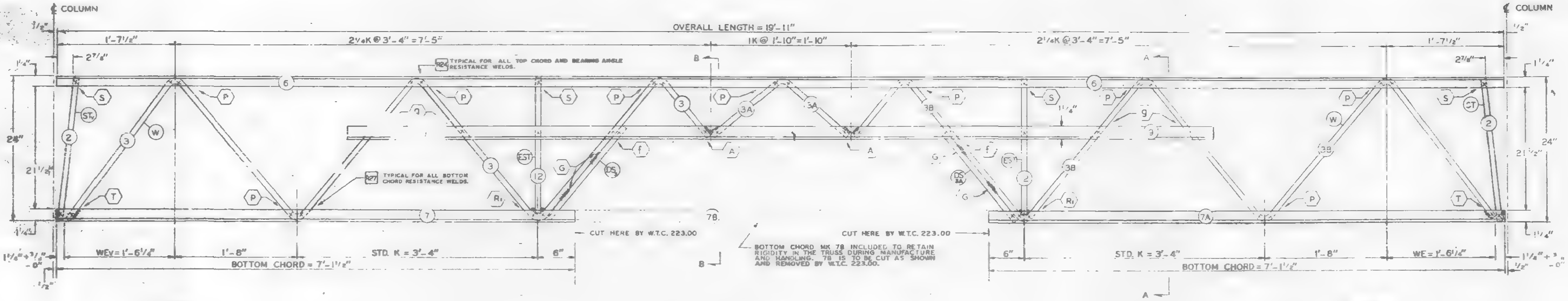
FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16AL (SEE NOTE 2) x 59'-9" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB1-15	PLATE
APPROVED FOR FABRICATION BY: James W. White FOR PONYA	DATE 11/7/68	DRAWN BY: gdc DATE OCT. 8, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE OCT 9, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. ST 216AL

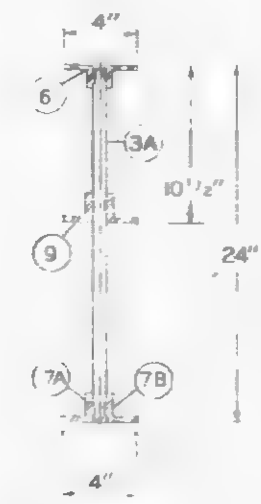
FABRICATION REQUIREMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	+ 3 / 8"
DESIGN DEPTH	24"	± 1 / 4"
PANEL K	3'-4"	± 1 / 4"
WEB DEPTH	23 7 / 8"	± 1 / 4"
OVERALL LENGTH	19'-11"	± 3 / 8"



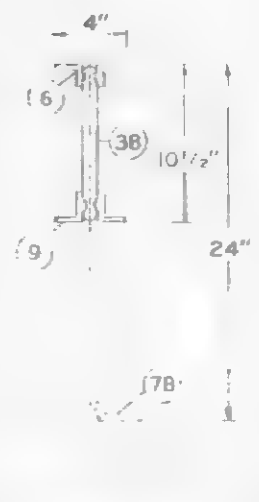
EL END

TRUSS ELEVATION

Es END



SECTION A-A



SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (▓▓).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie.. (A).
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST291 & ST293.
LETTERS & NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM. ie.. ▢.

REF. DRWG.

7-AB2-1	10-4-68
7-AB2-17	10-4-68
7-AB4-22	
7-AB4-28	
7-AB4-28.1	
SA-124	10

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD ONE ANGLE				MAIN WEB "W"				
	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK.	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	NO. OF K
24T168 - 1911	6	A242	1½"x1¼"x.275"	19'-11"	7B	A242	1½"x1¼"x.23"	19'-11"	3	A242	.98	13'-10¾"	2¼K @ 3'-4" = 8'-11¼"
									3A	A242	.98	2'-4⅛"	1K @ 1'-10" = 1'-10"
									3B	A242	.98	13'-10¾"	2¼K @ 3'-4" = 8'-11¼"

TRUSS DATA	DOUBLE STRUT				DOUBLE STRUT				VERTICAL "EST" STRUT					BEARING ANGLES			
	MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS.	DIA	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH
	DS3	A242	.98	1'-6¾"	DS3A	A242	.98	1'-6¾"	12	A242	2	.98	1'-10⅞"	9	A242	1½"x1¼"x.275"	11' 10"

Es END	TRUSS DESIGNATION	INCLINED "ST" STRUT				WE	CHORD PLATE				BOTTOM CHORD ONE ANGLE			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH
	24T168 - 1911	2	A242	.98	1'-11¾"	1'-6¼"	–	——	——	——	7A	A242	1½"x1¼"x.23"	7'-1½"

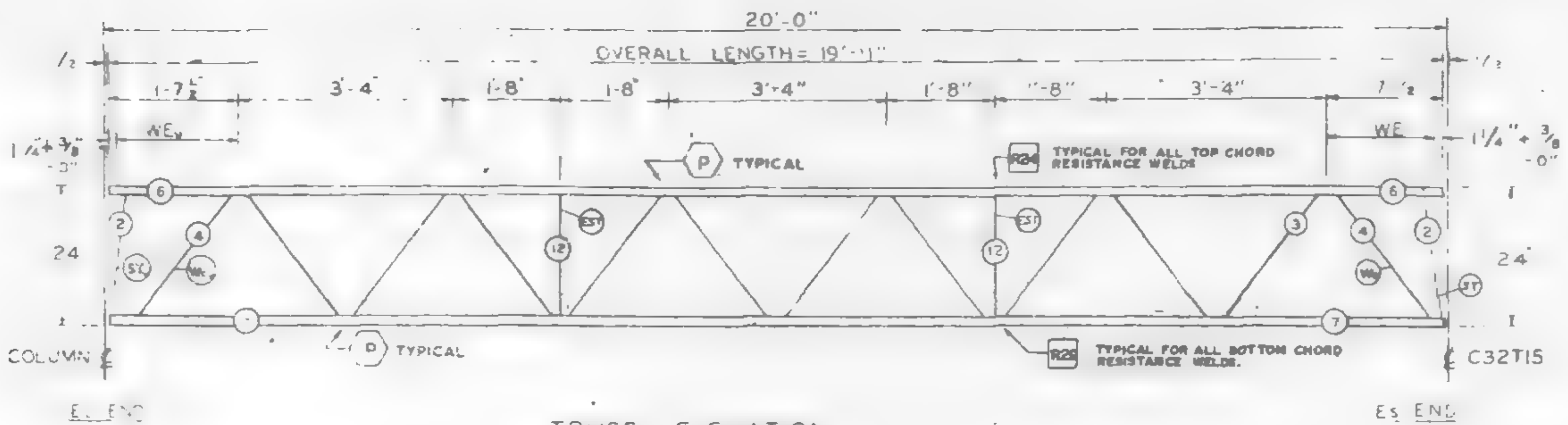
EL END	TRUSS DESIGNATION	INCLINED "STV" STRUT				WEV	CHORD PLATE				BOTTOM CHORD ONE ANGLE			
		MK.	TYPE STEEL	DIA.	LENGTH		MK.	TYPE STEEL	SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH
	24T168 - 1911	2	A242	.98	1'-11¾"	1'-6¼"	–	——	——	——	7	A242	1½"x1¼"x.23"	7'-1½"

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

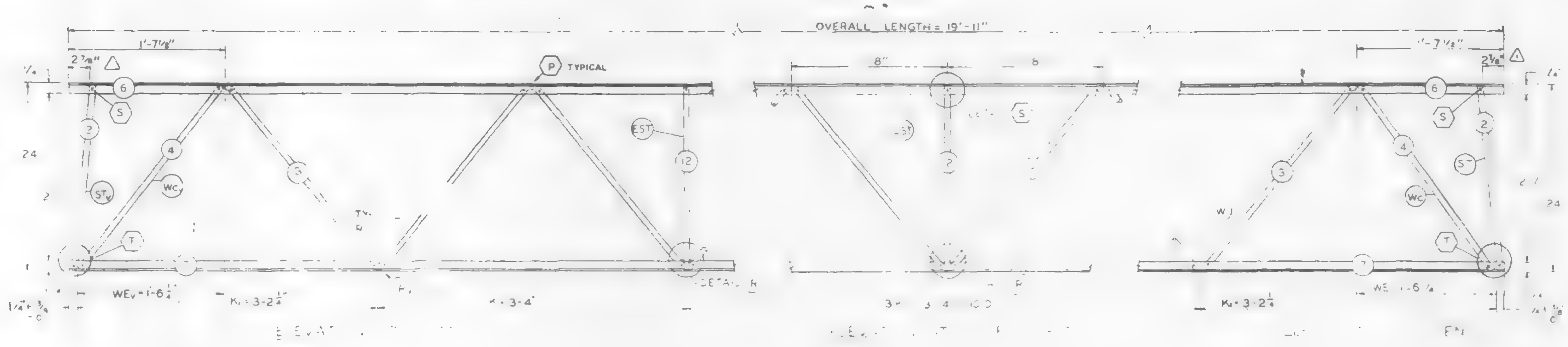
BRIDGING TRUSS 24T168 x 19'-11" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO. 7-AB2-17	PLATE
APPROVED FOR FABRICATION BY ___ FOR P.O.N.Y.A — DATE 11/7/68	DRAWN BY: gdc DATE SEPT. 26, 1968	
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR — DATE	CHECKED BY: T.M.CHURA DATE SEPT. 26, 1968	IN CHARGE PROD. DEV
DETAILED BY A. CARL WEBER — LACLEDE STEEL CO.	FABRICATION CONT. NO. W.T.C. 221	SHEET BT-216 B



TRUSS ELEVATION



FABRICATION REQUIRMENTS		
	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	± 3/8"
DESIGN DEPTH	24"	± 1/4"
PANEL "K"	3'-4"	± 1/4"
PANEL "K₁"	3'-2½"	± 1/8"
WEB DEPTH	23⅛"	± 1/4"
OVERALL LENGTH	19'-11"	± 3/8"

ALL PANEL POINTS RESISTANCE WELDED (*)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ( )
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

REF. DWG

7-AB2-1	10-4-68
7-AB2-17	10-4-68
7-AB4-15.1	10-4-68
7-AB4-[illegible]	7-22-68
7-AB4-28.61	7-22-68
7-AB4-38	10-4-68

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA	FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED		NO.	DIA
24T16C-1911	6	A242	1½"x1¼"x.275"	19'-11"	7	A242	1½"x1¼"x.230"	19'-11"	3	A242	.98	25'-7½"	5K @ 3'-4" = 16'-8"	12	A242	.98	1'-10⅞"	2		—	—

Es END	TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
			MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T16C-1911	1'-6¼"	2	A242	.98	1'-1¾"	4	A242	1	.98	2'-5⅛"

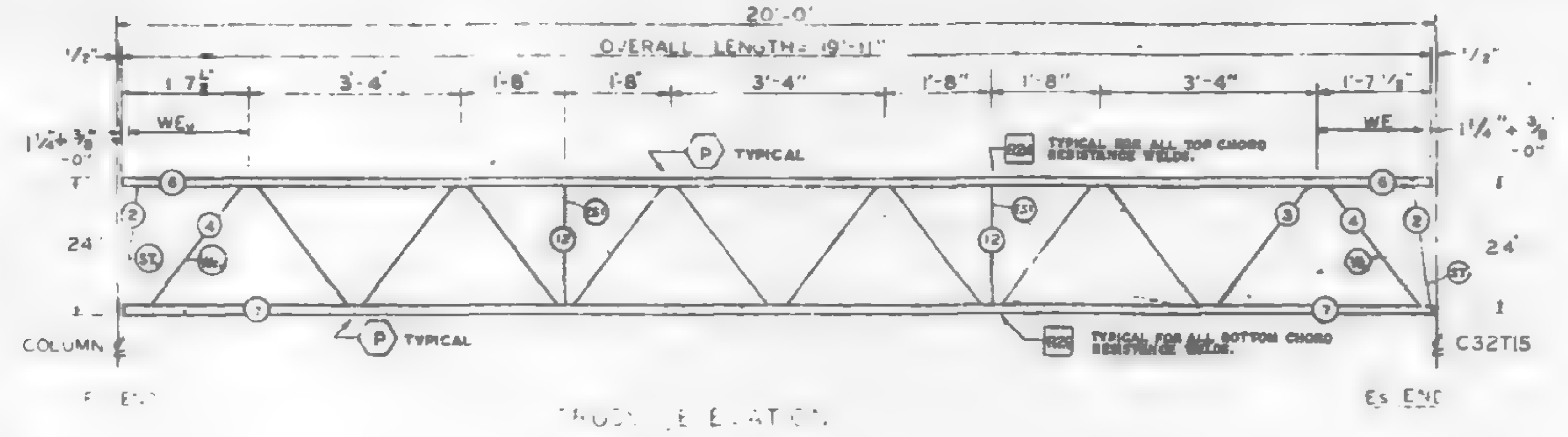
[illegible] END	TRUSS DESIGNATION	BEARING ANGLES				WE₁	DIAGONAL "T₁" STRUT				INCLINED "ST₁" STRUT				END STIFFENER						WEB "Wc₁"				
															MK V5			MK V6							
		MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
	24T16C-1911	—	—	—	—	1'-6¼"	—	—	—	—	2	A242	.98	1'-11¾"	—	—	—	—	—	—	4	A242	1	.98	2'-5⅛"

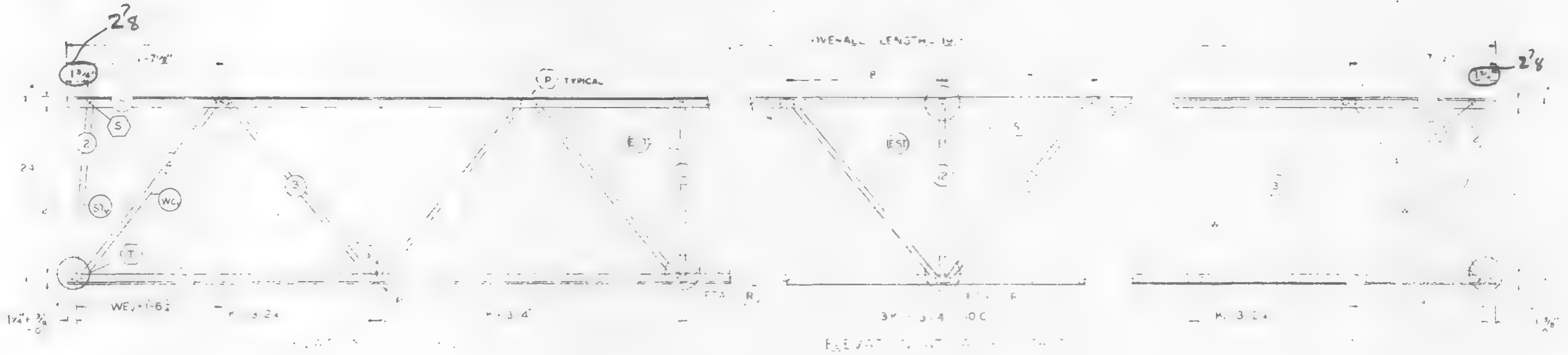
BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T16C x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB2-17 PLATE
APPROVED FOR FABRICATION BY FOR "PONYA" DATE 11/18/68
DRAWN BY DATE OCT. 28, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: TM CHURA DATE OCT 28, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO W T C 221
SHEET NO BT 216 C

NO	DATE	REVISION
[illegible]	11-1-68	AS NOTED





ALL PANEL POINTS RESISTANCE WELDED [illegible] ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R29.

FABRICATION REQUIRMENTS	DESIGN	TOLERANCE
CAMBER AT MIDSPAN	0"	[illegible]
DESIGN DEPTH	24"	[illegible]
PANEL "K"	3'-4"	[illegible]
PANEL "K₁"	3'-2 1/2"	[illegible]
WEB DEPTH	23 1/2"	[illegible]
OVERALL LENGTH	19'-11"	[illegible]

TRUSS DESIGNATION	TOP CHORD TWO ANGLES				BOTTOM CHORD TWO ANGLES				MAIN WEB "W"					VERTICAL "EST" STRUT					TRUSS DATA		FILLER	
	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	CHORD SIZE	LENGTH	MK	TYPE STEEL	DIA	LENGTH	NO OF K	MK	TYPE STEEL	DIA	LENGTH	NUMBER REQUIRED			NO.	DIA.
24T16C - 1911	6	A242	1 1/2" x 1 1/4" x .275"	19'-11"	7	A242	1 1/2" x 1 1/4 x .230"	19'-11"	3	A242	.98	25'-7 1/2"	5K @ 3'-4" = 16'-8"	12	A242	.98	1'-10 7/8"	2			—	—

Es END TRUSS DESIGNATION	WE	INCLINED "ST" STRUT				WEB "Wc"				
		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	PCS.	DIA	LENGTH
24T16C - 1911	1'-6 1/4"	2	A242	.98	1'-11 3/4"	4	A242	1	.98	2'-5 1/2"

EL END TRUSS DESIGNATION	BEARING ANGLES				WE_T	DIAGONAL "T_V" STRUT				INCLINED "ST_V" STRUT				END STIFFENER MK V5			END STIFFENER MK V6			WEB "Wc_V"				
	MK	TYPE STEEL	CHORD SIZE	LENGTH		MK	TYPE STEEL	DIA	LENGTH	MK	TYPE STEEL	DIA	LENGTH	TYPE STEEL	DIA.	LENGTH	TYPE STEEL	DIA.	LENGTH	MK	TYPE STEEL	PCS	DIA	LENGTH
24T16C - 1911	—	—	—	—	1'-6 1/4"	—	—	—	—	2	A242	.98	1'-11 1/2"	—	—	—	—	—	—	4	A242	1	.98	2'-5 1/2"

REF. DWG.
7-AB2-1 10-4-68
7-AB2-17 10-4-68
7-AB4-15.1 10-4-68
7-AB4-16.18 7-22-68
7-AB4-28.41 7-22-68
7-AB4-38 10-4-68

SKILLING HELLE CHRISTIANSEN ROBERTSON
11/7/68 SK

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

BRIDGING TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

BRIDGING TRUSS 24T16C x 19'-11" LONG
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB2-17	PLATE
APPROVED FOR FABRICATION BY FOR PONYA	DATE	DRAWN BY: DATE OCT. 28, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M.CIRIRA DATE OCT. 28, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A. C. WEBER		FABRICATION CONT. NO. W T C 221	SHEET NO. BT 216 C

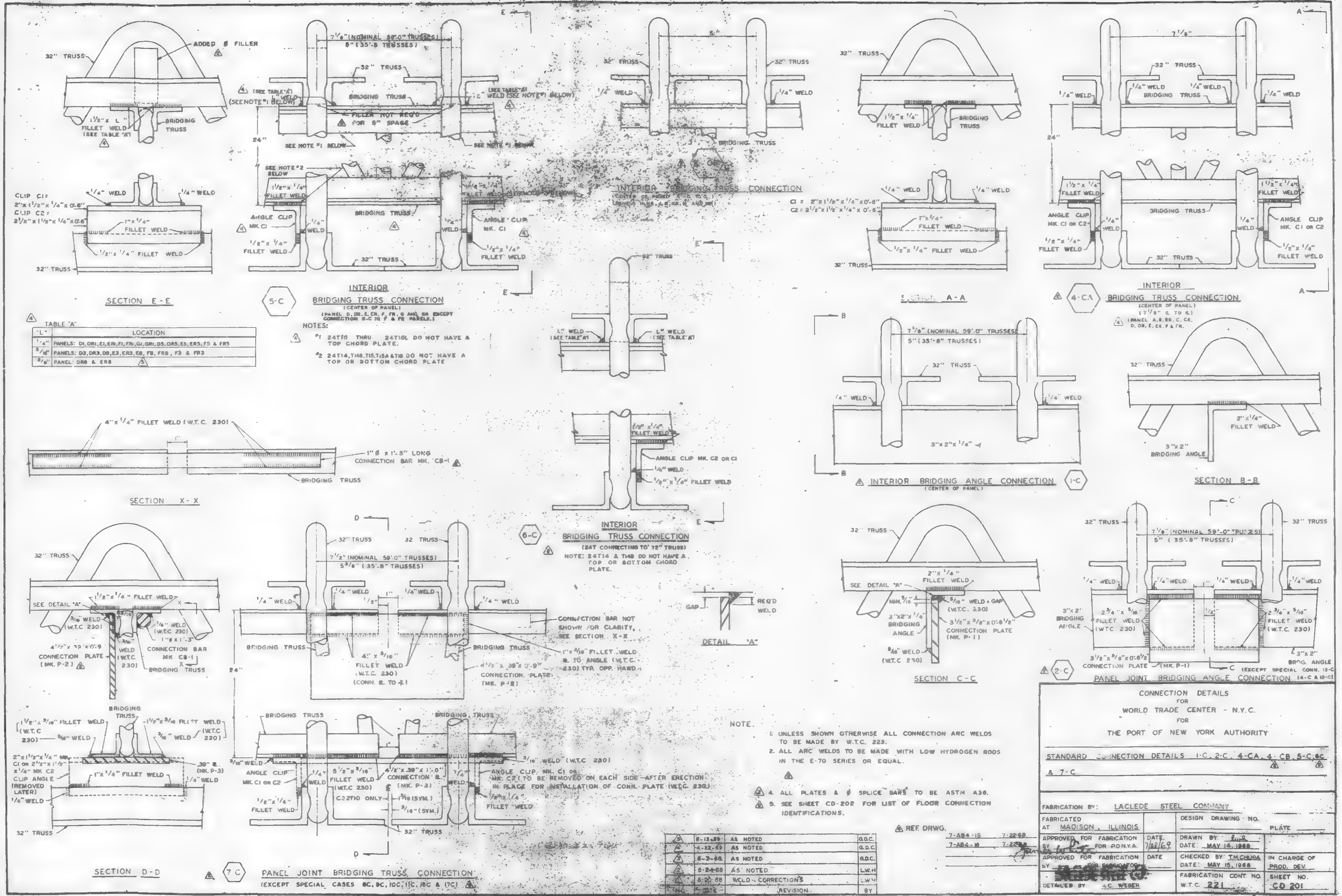


TABLE "A"

"L"	LOCATION
1/4"	PANELS: D1, DR1, E1, ER1, F1, FR1, G1, GR1, D5, DR5, E5, ER5, F5 & FR5
5/16"	PANELS: D3, DR3, D8, E3, ER3, E8, F8, FR8, F3 & FR3
3/8"	PANEL: DR8 & ER8

INTERIOR BRIDGING TRUSS CONNECTION (5-C)
(CENTER OF PANEL)
(PANEL D, DR, E, ER, F, FR, G AND GR EXCEPT CONNECTION 6-C IN F & FR PANELS.)

NOTES:

#1 24T10 THRU 24T10L DO NOT HAVE A TOP CHORD PLATE.

#2 24T14, T14B, T15, T15A & T16 DO NOT HAVE A TOP OR BOTTOM CHORD PLATE

NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
4. ALL PLATES & ¢ SPLICE BARS TO BE ASTM A36.
5. SEE SHEET CD-202 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS.

REF. DRWG.

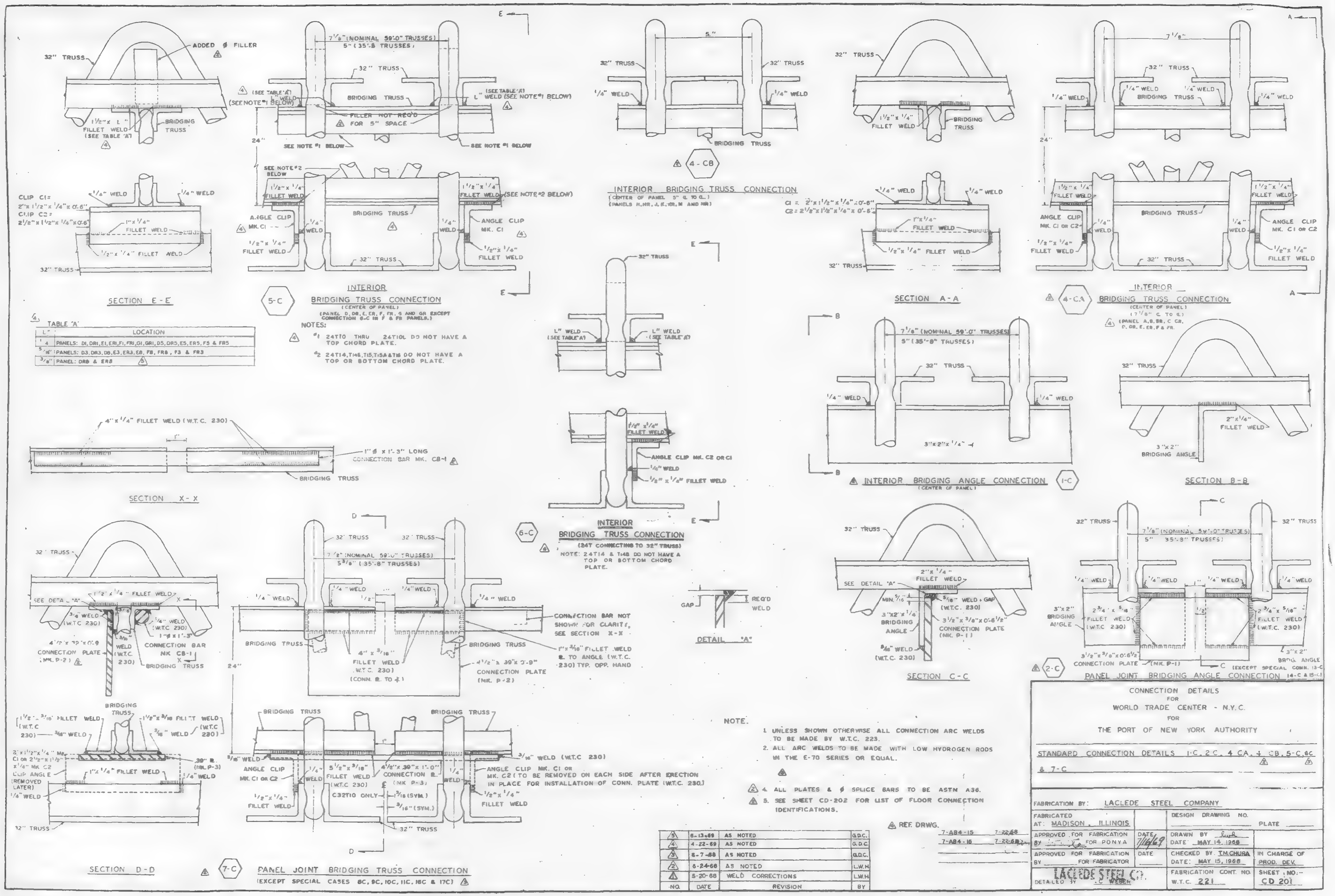
7-AB4-15	7-22-68
7-AB4-16	7-22-68

NO.	DATE	REVISION	BY
5	5-13-69	AS NOTED	G.D.C.
4	4-22-69	AS NOTED	G.D.C.
3	6-7-68	AS NOTED	G.D.C.
2	5-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD - CORRECTIONS	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-C, 2-C, 4-CA, 4-CB, 5-C, 6C & 7-C

FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A.	DATE 7/22/69	DRAWN BY: DATE: MAY 14, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 201



NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. (deleted)
4. ALL PLATES & ∅ SPLICE BARS TO BE ASTM A36.
5. SEE SHEET CD-202 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS.

REF. DRWG.

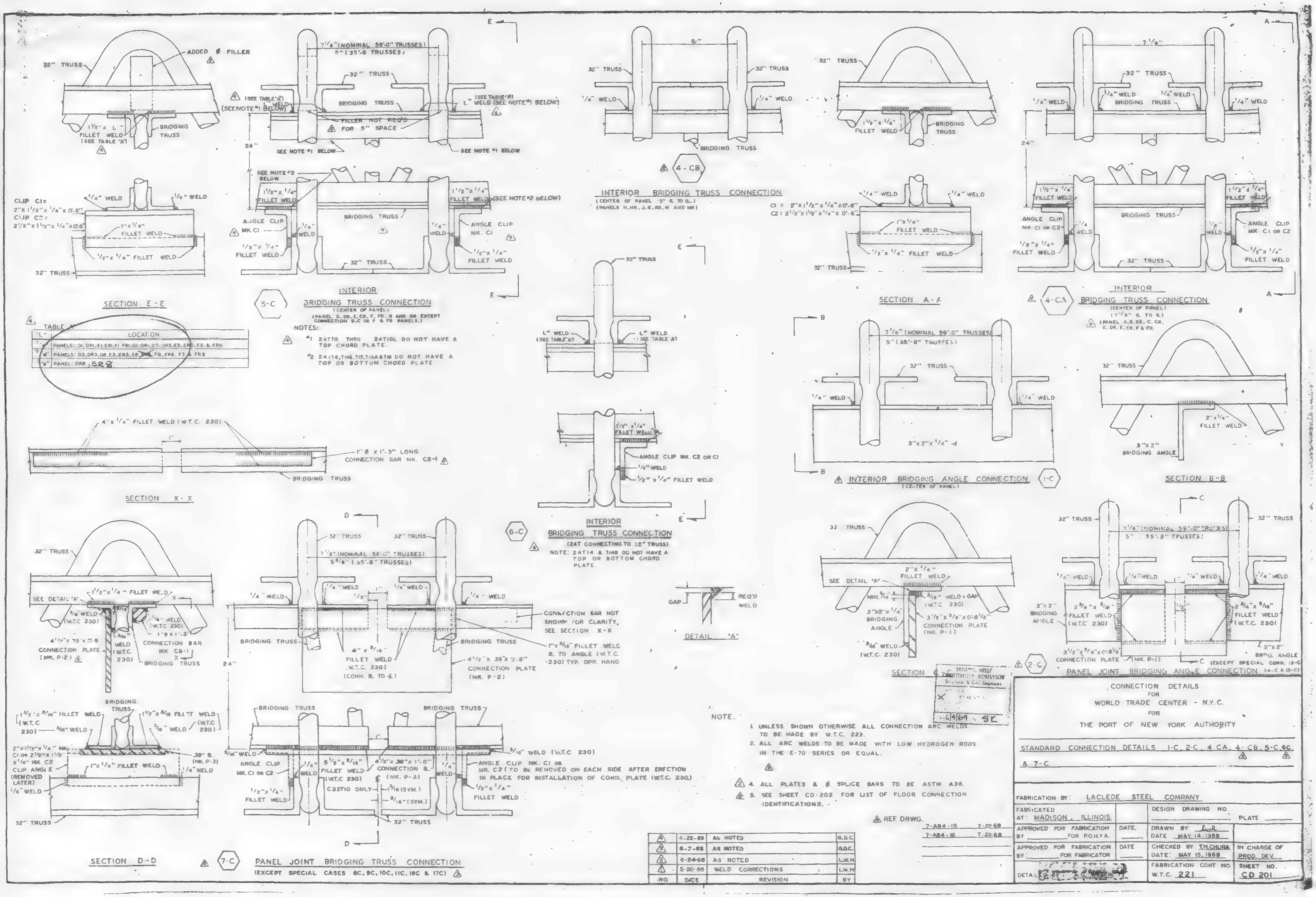
7-AB4-15 7-22-68
7-AB4-16 7-22-68

NO.	DATE	REVISION	BY
5	6-13-69	AS NOTED	G.D.C.
4	4-22-69	AS NOTED	G.D.C.
3	8-7-68	AS NOTED	G.D.C.
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-C, 2-C, 4 CA, 4 CB, 5-C, 6C & 7-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. PLATE
APPROVED FOR FABRICATION BY FOR PONYA — DATE 7/16/69
DRAWN BY — DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR — DATE
CHECKED BY T.M. CHURA — DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY C. WEBER — LACLEDE STEEL CO.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO.: CD 201



NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. (3)
4. ALL PLATES & ⌀ SPLICE BARS TO BE ASTM A36.
5. SEE SHEET CD-202 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS.

REF. DRWG.

7-AB4-15	7-22-68
7-AB4-16	7-22-68

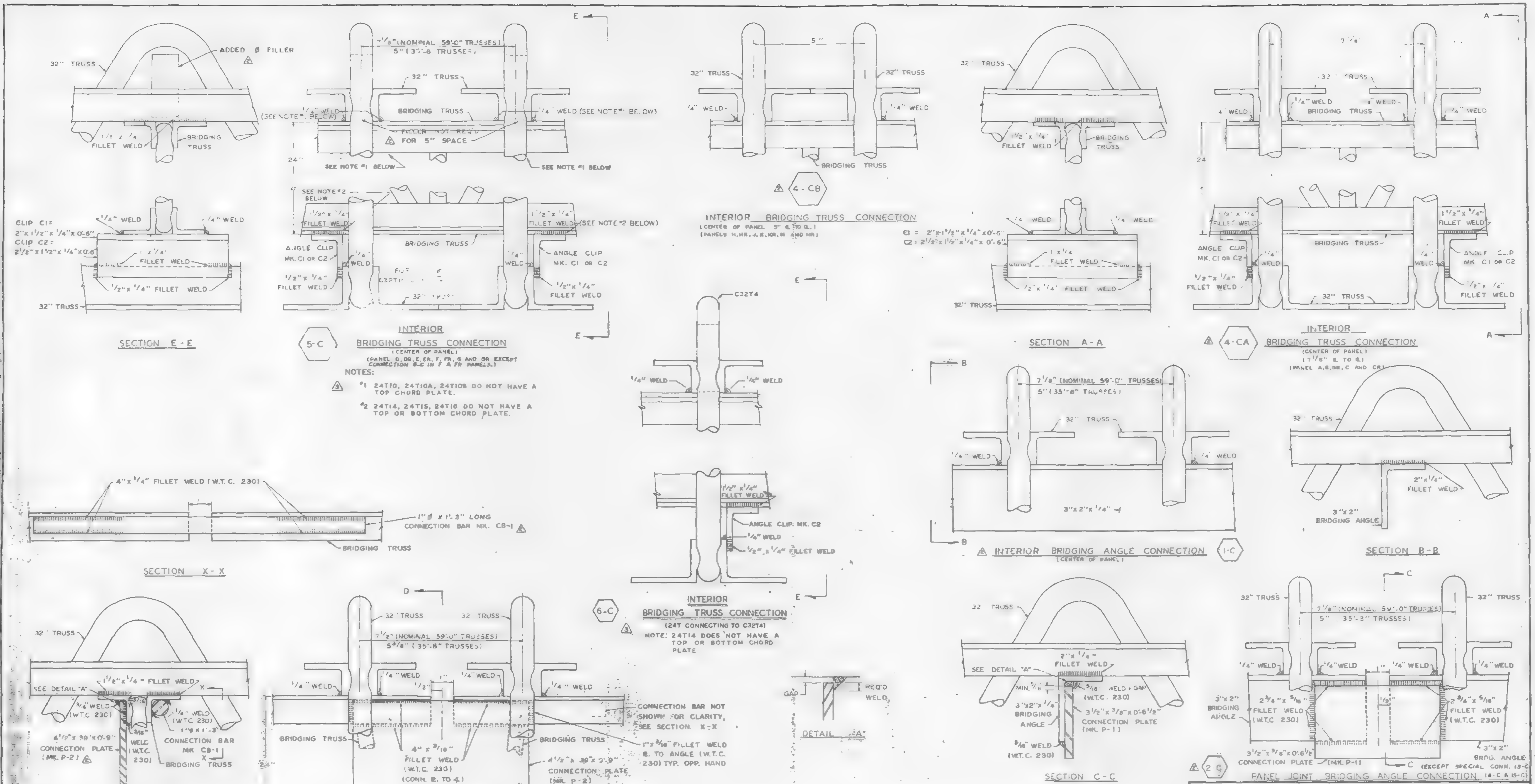
NO.	DATE	REVISION	BY
4	4-22-69	AS NOTED	G.D.C.
3	8-7-68	AS NOTED	G.D.C.
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD CORRECTIONS	L.W.H.

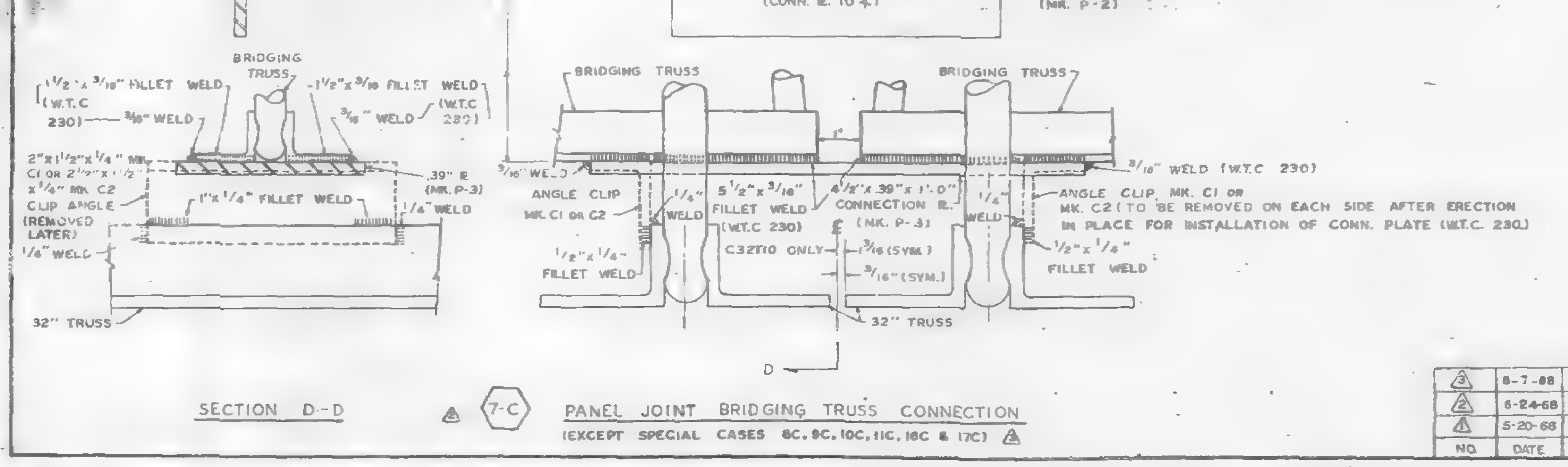
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-C, 2-C, 4-CA, 4-CB, 5-C, 6C, & 7-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
DRAWN BY: L.W.H. DATE: MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 201

0 700-777
WTC1-131-LERA





NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
3. (deleted)
4. ALL PLATES & ϕ SPLICE BARS TO BE ASTM A36.
5. SEE SHEET CD-202 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS.

REF. DRWG.
7-AB4-15 5-6-68
7-AB4-16 5-6-68

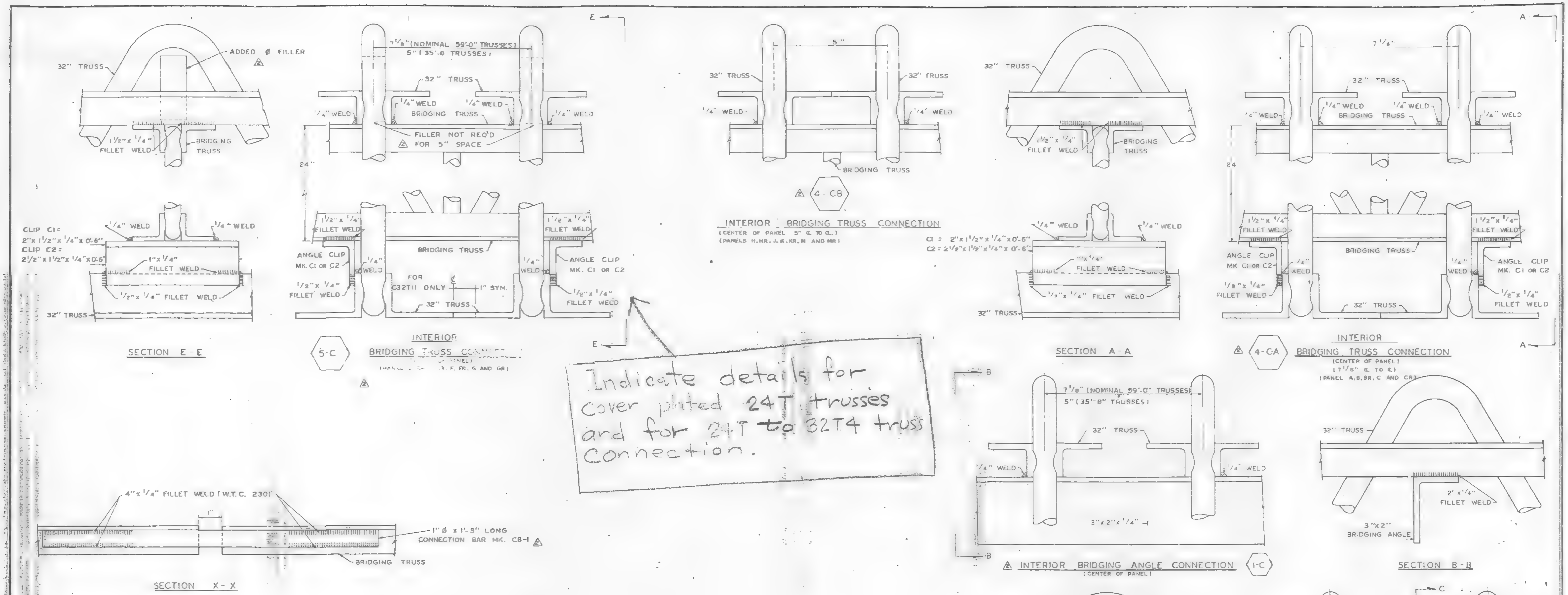
NO.	DATE	REVISION	BY
3	8-7-68	AS NOTED	G.D.C.
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD CORRECTIONS	L.W.H.

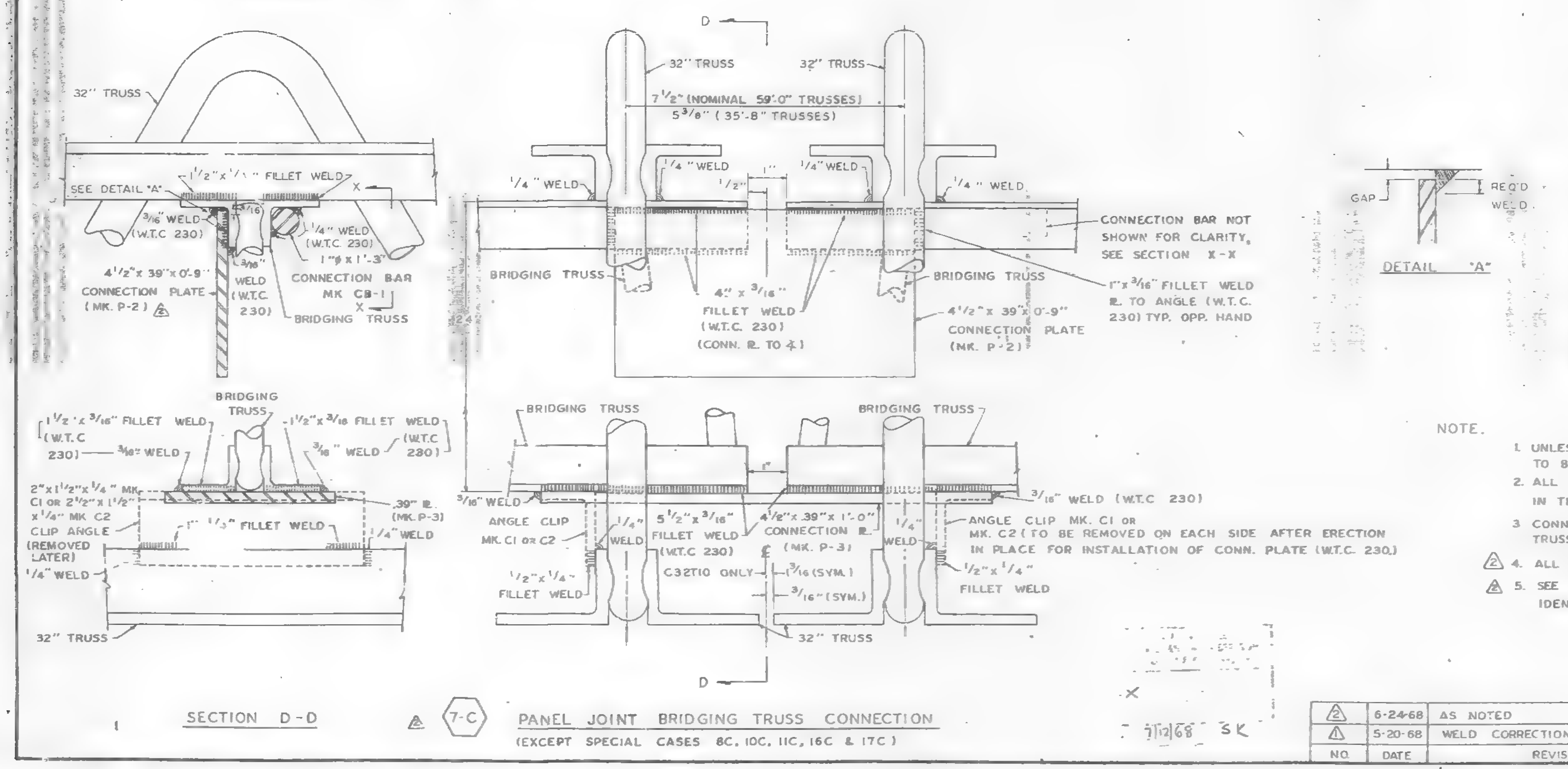
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

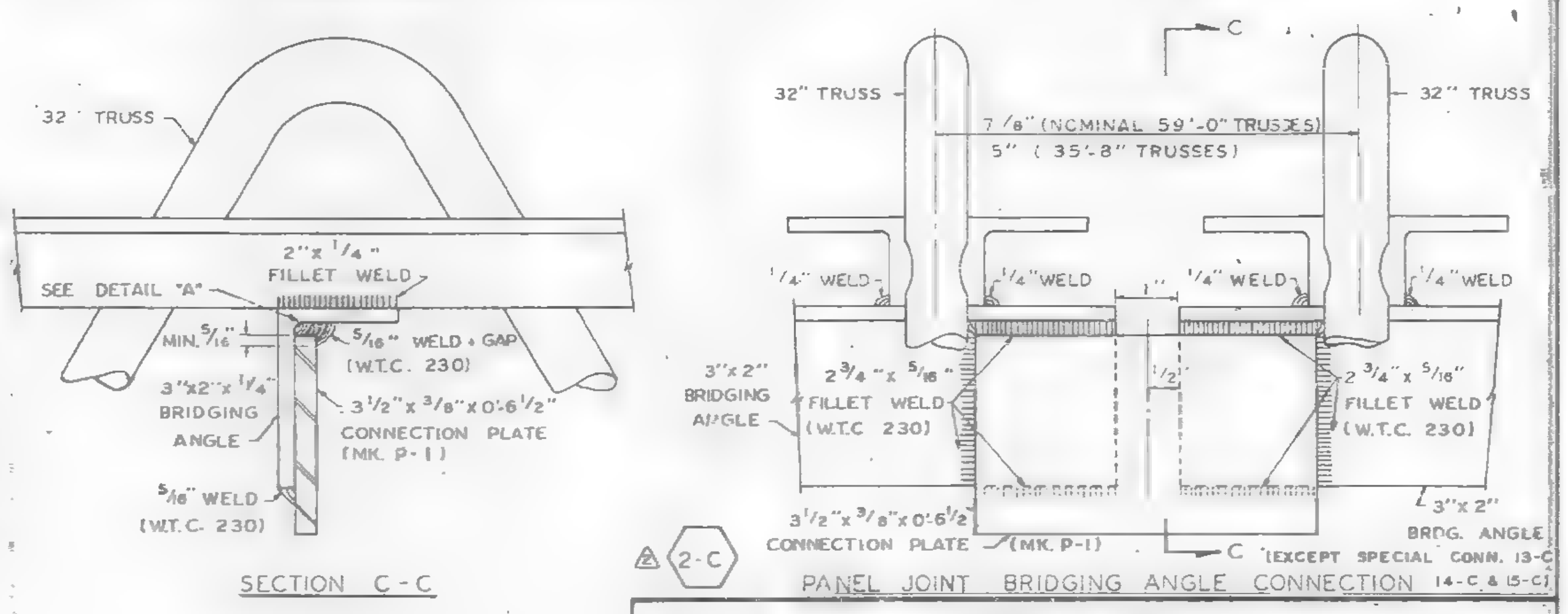
STANDARD CONNECTION DETAILS 1-C, 2 C, 4 CA, 4-CB, 5-C, 6C & 7-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. ____ PLATE ____	
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE 8/29/68	DRAWN BY ____ DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY C. WEBER		FABRICATION CONT NO. W.T.C. 221	SHEET NO. CD 201







NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. CONNECTION 4-C & 5-C: WHEN CONNECTING BRIDGING TRUSSES WITH CHORD PLATES USE CLIP ANGLE C1.
4. (△2) ALL PLATES & ∅ SPLICE BARS TO BE ASTM A36.
5. (△2) SEE SHEET CD-202 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS.

△ REF. DRWG.

7-AB4-15	5-6-68
7-AB4-16	5-6-68

7/12/68 SK

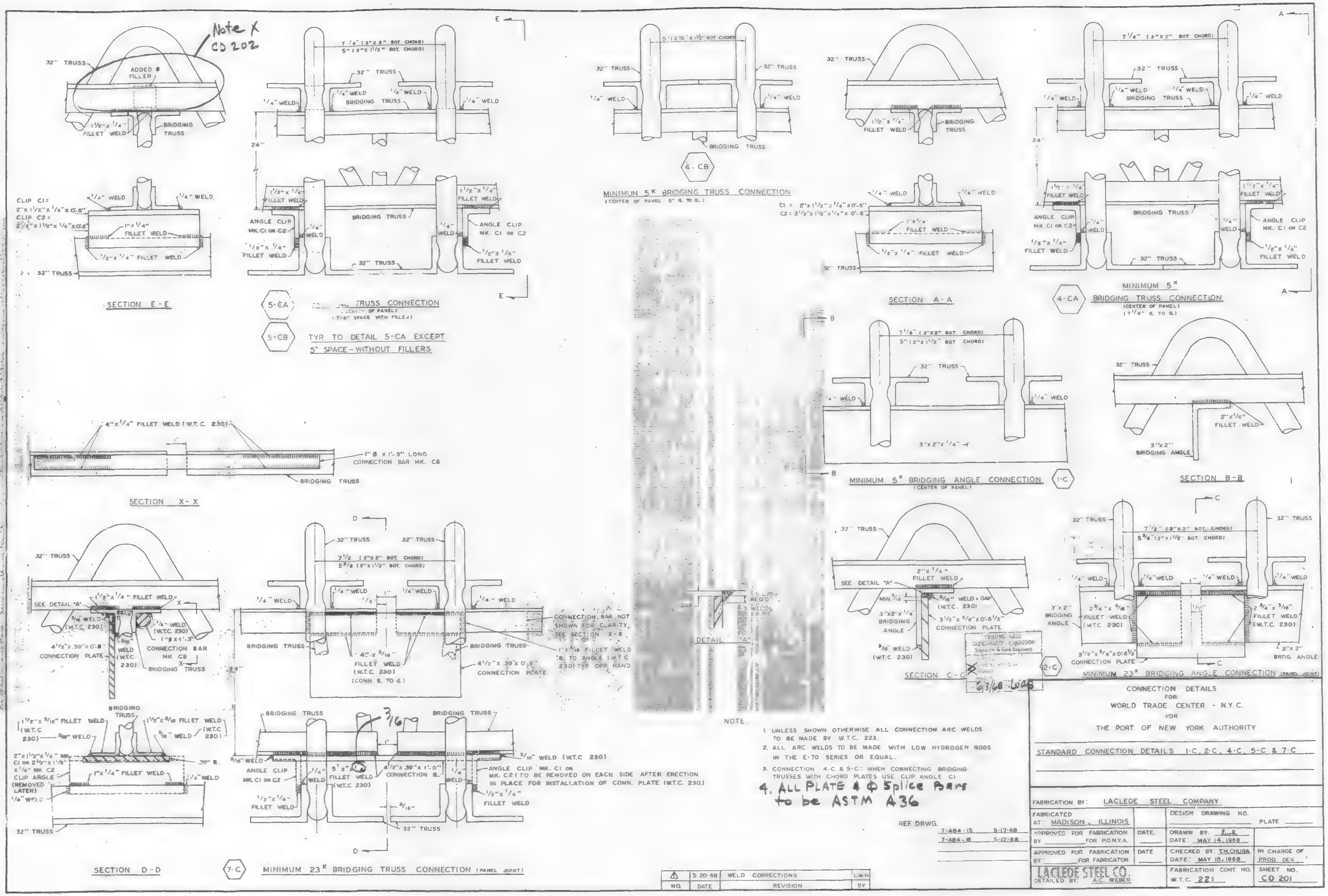
NO.	DATE	REVISION	BY
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-C, 2-C, 4-CA, 4-CB, 5-C & 7-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS	DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE	DRAWN BY L.W.H. DATE: MAY 14, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER	FABRICATION CONT NO. W.T.C. 221	SHEET NO. CD 201



NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. CONNECTION 4-C & 5-C: WHEN CONNECTING BRIDGING TRUSSES WITH CHORD PLATES USE CLIP ANGLE C1
4. ALL PLATE & ⌀ Splice Bars to be ASTM A36

REF DRWG.

7-AB4-15	5-17-68
7-AB4-16	5-17-68

NO.	DATE	REVISION	BY
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-C, 2-C, 4-C, 5-C & 7-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS

DESIGN DRAWING NO. — PLATE —

APPROVED FOR FABRICATION BY — FOR P.O.N.Y.A. — DATE

APPROVED FOR FABRICATION BY — FOR FABRICATOR — DATE

DRAWN BY: L.B. DATE: MAY 14, 1968

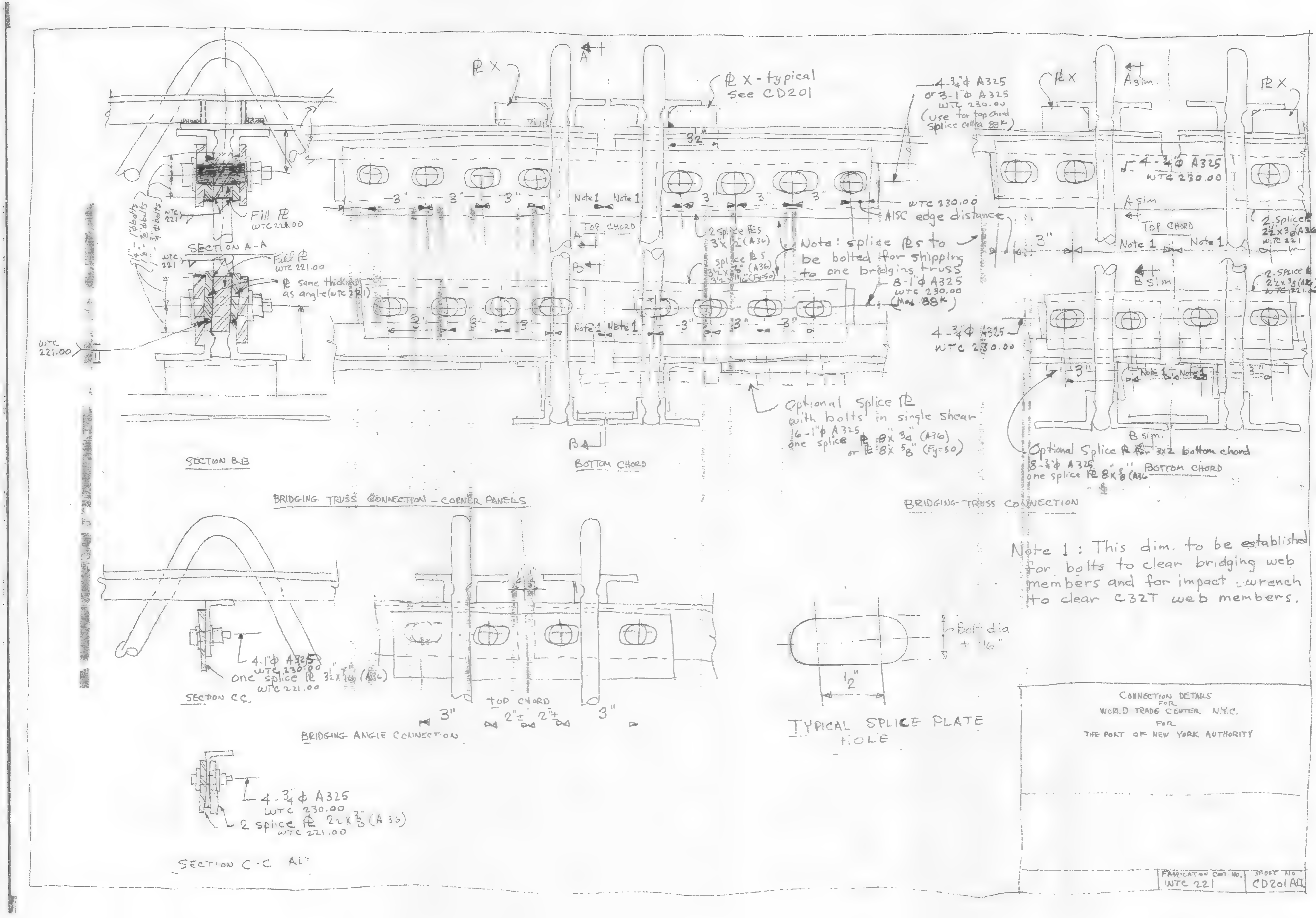
CHECKED BY: T.M.CHUBA DATE: MAY 15, 1968

IN CHARGE OF PROD. DEV.

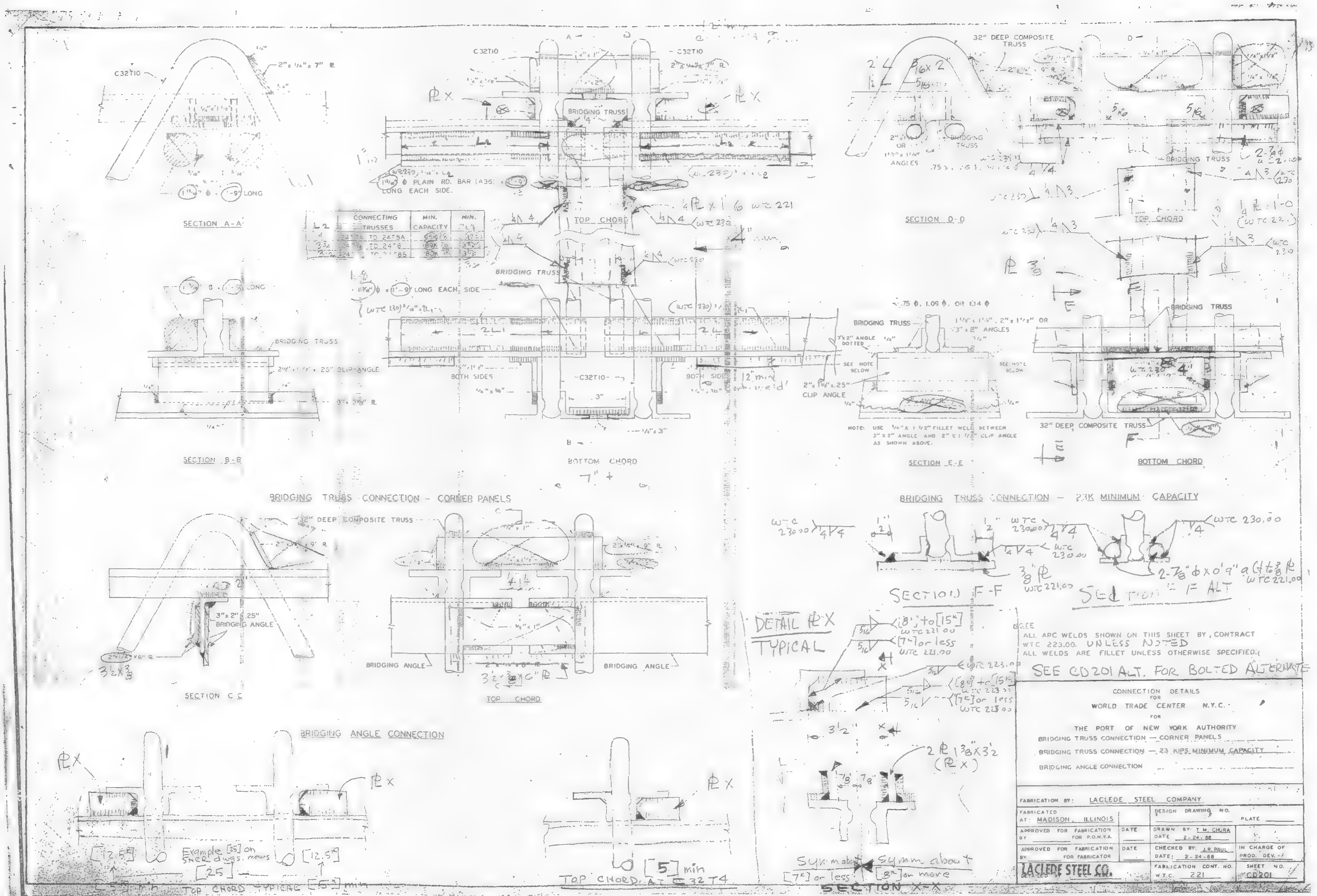
LACLEDE STEEL CO. DETAILED BY: A.C. WEBER

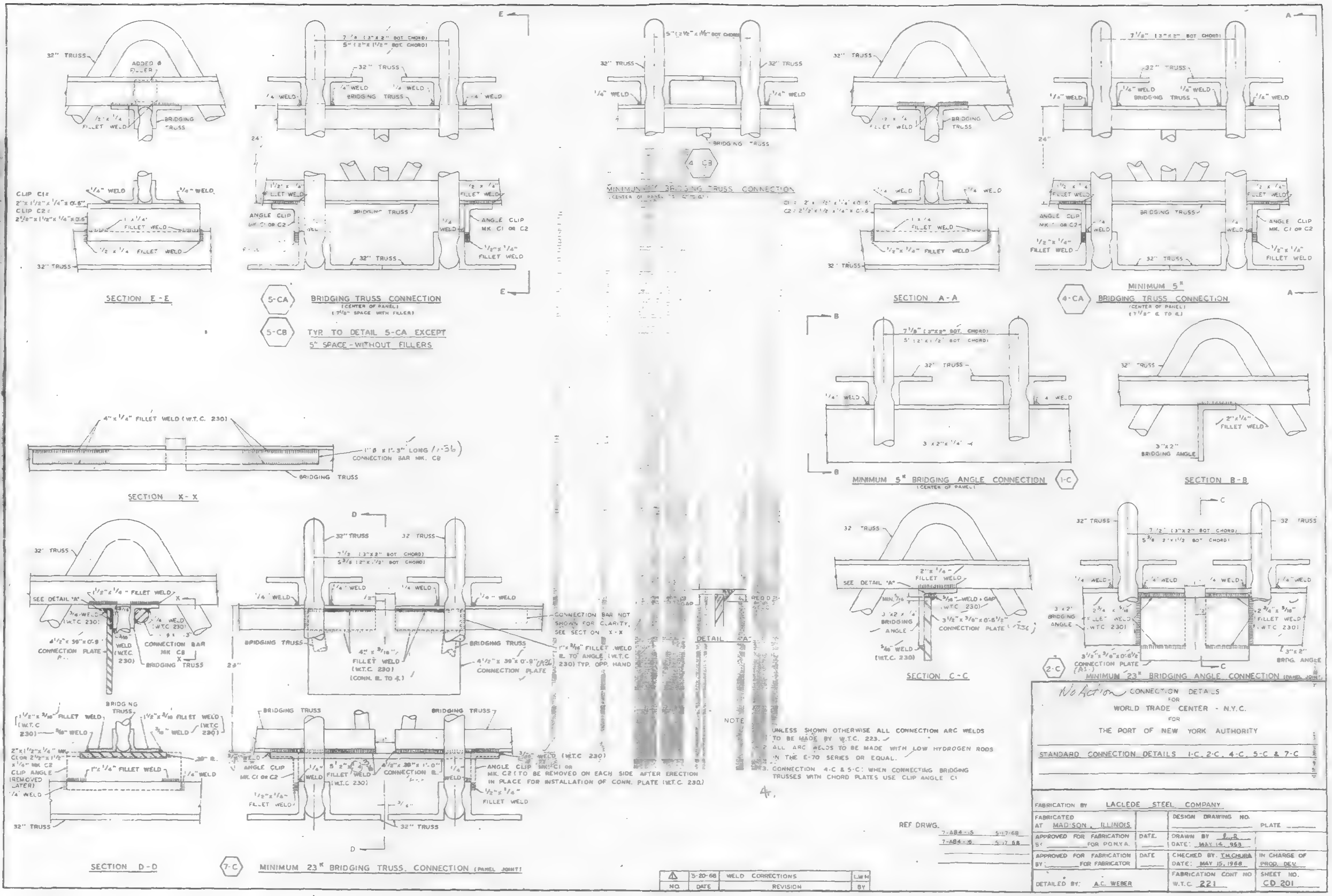
FABRICATION CONT. NO. W.T.C. 221

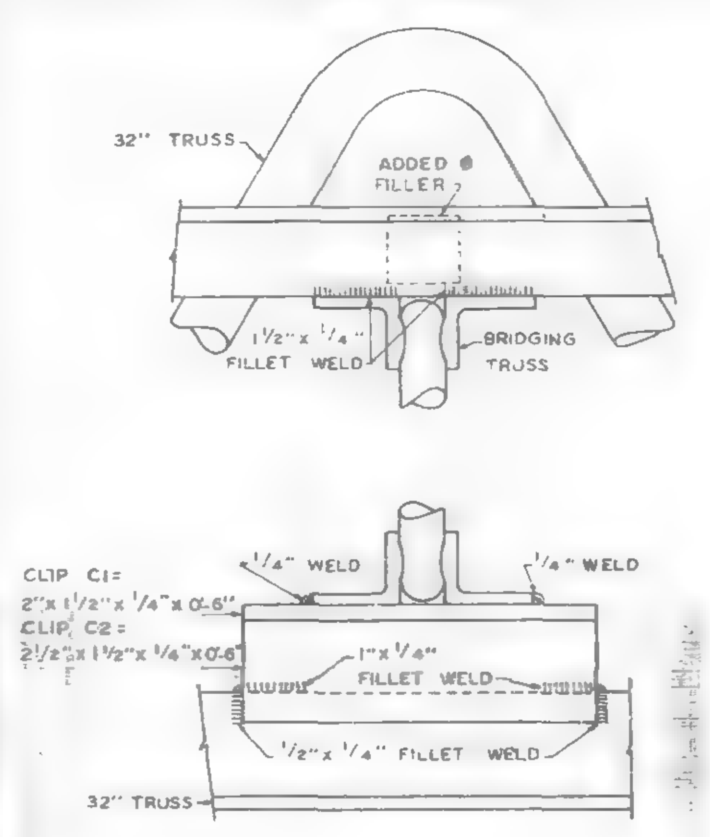
SHEET NO. CD 201



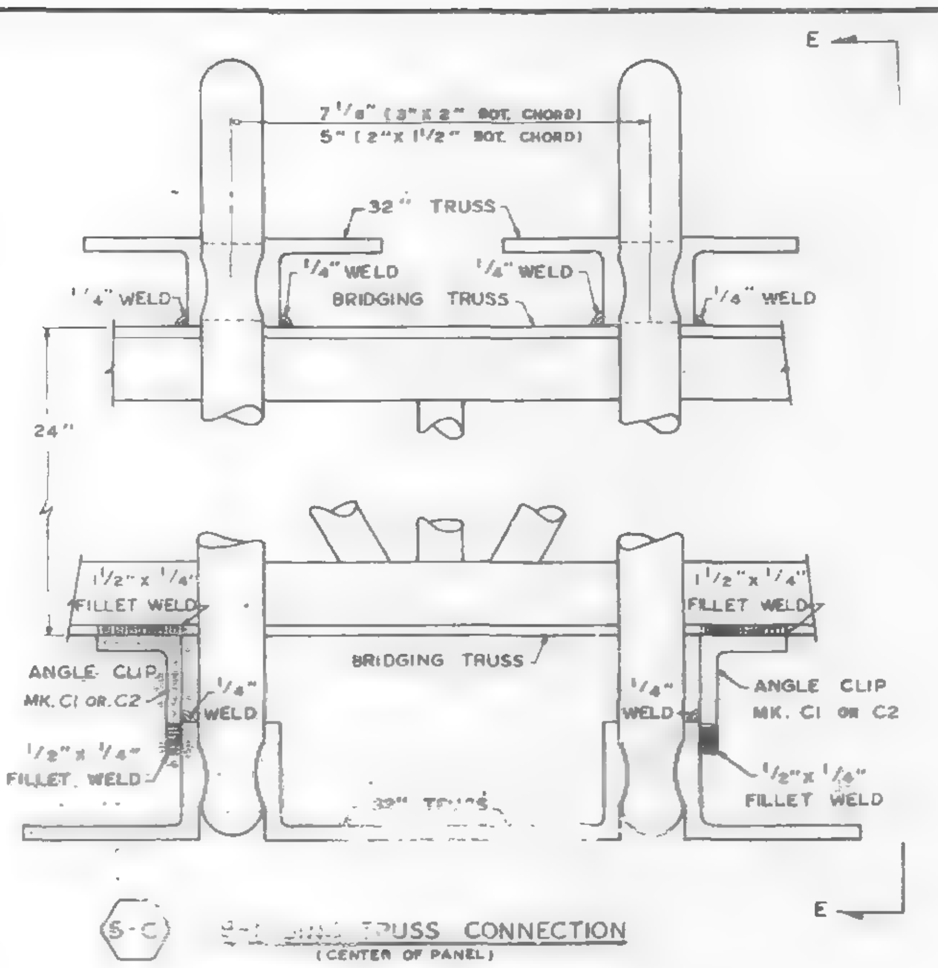
℞ X
℞ X - typical
See CD201
4-¾"φ A325
or 3-1"φ A325
WTC 230.00
(use for top chord splice cells ≥ 88K)
4-¾"φ A325
WTC 230.00
WTC 230.00
AISC edge distance
Fill ℞
WTC 221.00
SECTION A-A
℞ same thick as angle (WTC 221)
Note 1
TOP CHORD
2 splice ℞s
Note: splice ℞s to be bolted for shipping to one bridging truss
8-1"φ A325
WTC 230.00
(Max 88K)
2 Splice ℞
WTC 221
4-¾"φ A325
WTC 230.00
Optional Splice ℞ with bolts in single shear
16-1"φ A325
one splice ℞ 8x¾ (A36)
or ℞ 8x⅝ (Fy=50)
Optional Splice ℞ for 3x2 bottom chord
8-¾"φ A325
one splice ℞ 8x⅜ (A36)
SECTION B-B
BOTTOM CHORD
BRIDGING TRUSS CONNECTION - CORNER PANELS
BRIDGING TRUSS CONNECTION
Note 1: This dim. to be established for bolts to clear bridging web members and for impact wrench to clear C32T web members.
4-1"φ A325
WTC 230.00
one splice ℞
WTC 221.00
SECTION C-C
TOP CHORD
BRIDGING ANGLE CONNECTION
Bolt dia. + 1/16"
½"
TYPICAL SPLICE PLATE HOLE
4-¾φ A325
WTC 230.00
2 splice ℞ (A36)
WTC 221.00
SECTION C-C ALT
CONNECTION DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
FABRICATION CONT. NO.
WTC 221
SHEET NO.
CD201 ALT


SECTION A-A
C32T10
SECTION B-B
BRIDGING TRUSS
BOTTOM CHORD
TOP CHORD
SECTION D-D
SECTION E-E
BRIDGING TRUSS CONNECTION - CORNER PANELS
BRIDGING TRUSS CONNECTION - 23K MINIMUM CAPACITY
32" DEEP COMPOSITE TRUSS
SECTION C-C
BRIDGING ANGLE
SECTION F-F
SECTION F ALT
DETAIL PL X TYPICAL
BRIDGING ANGLE CONNECTION
SECTION X-X
NOTE: USE 1/4" x 1 1/2" FILLET WELD BETWEEN 3" x 2" ANGLE AND 2" x 1 1/2" CLIP ANGLE AS SHOWN ABOVE.
NOTE
ALL ARC WELDS SHOWN ON THIS SHEET BY CONTRACT WTC 223.00. UNLESS NOTED
ALL WELDS ARE FILLET UNLESS OTHERWISE SPECIFIED.
SEE CD201 ALT. FOR BOLTED ALTERNATE
CONNECTION DETAILS FOR WORLD TRADE CENTER N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY
BRIDGING TRUSS CONNECTION — CORNER PANELS
BRIDGING TRUSS CONNECTION — 23 KIPS MINIMUM CAPACITY
BRIDGING ANGLE CONNECTION
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO.
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A.
APPROVED FOR FABRICATION BY FOR FABRICATOR
DATE
DRAWN BY: T.M. CHURA DATE 2-24-68
CHECKED BY: J.R. PAUL DATE: 2-24-68
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD201

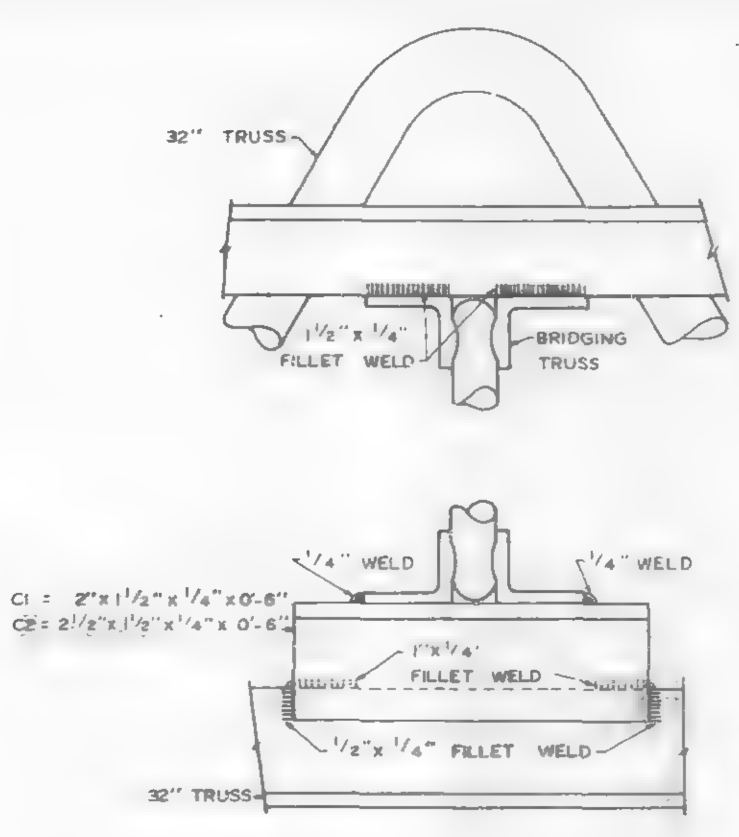

SECTION E-E
5-CA BRIDGING TRUSS CONNECTION (CENTER OF PANEL) (7 1/2" SPACE WITH FILLER)
5-CB TYP. TO DETAIL 5-CA EXCEPT 5" SPACE - WITHOUT FILLERS
4-CB MINIMUM 5" BRIDGING TRUSS CONNECTION
SECTION A-A
4-CA MINIMUM 5" BRIDGING TRUSS CONNECTION (CENTER OF PANEL) (7 1/2" ℄ TO ℄)
MINIMUM 5" BRIDGING ANGLE CONNECTION (CENTER OF PANEL) 1-C
SECTION B-B
SECTION X-X
SECTION C-C
2-C MINIMUM 23" BRIDGING ANGLE CONNECTION (PANEL JOINT)
SECTION D-D
7-C MINIMUM 23" BRIDGING TRUSS CONNECTION (PANEL JOINT)
NOTE
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. CONNECTION 4-C & 5-C: WHEN CONNECTING BRIDGING TRUSSES WITH CHORD PLATES USE CLIP ANGLE C1
REF DRWG.
7-AB4-5 5-17-68
7-AB4-5 5-17-68
1 5-20-68 WELD CORRECTIONS LWH
NO. DATE REVISION BY
No Action
CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY
STANDARD CONNECTION DETAILS 1-C, 2-C, 4-C, 5-C & 7-C
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DETAILED BY: A.C. WEBER
DESIGN DRAWING NO. PLATE
DRAWN BY DATE: MAY 14, 1968
CHECKED BY T.M.CHURA DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT NO W.T.C. 221
SHEET NO. CD 201



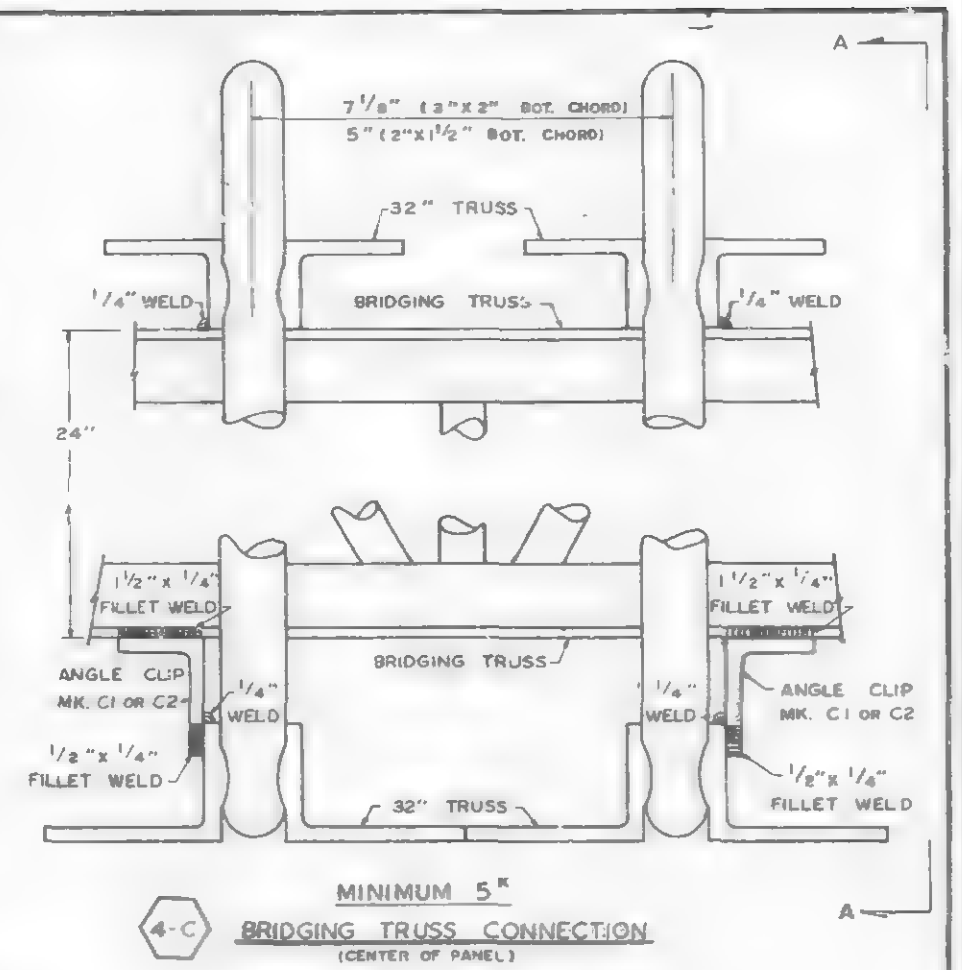
SECTION E-E



(5-C) ... TRUSS CONNECTION (CENTER OF PANEL)

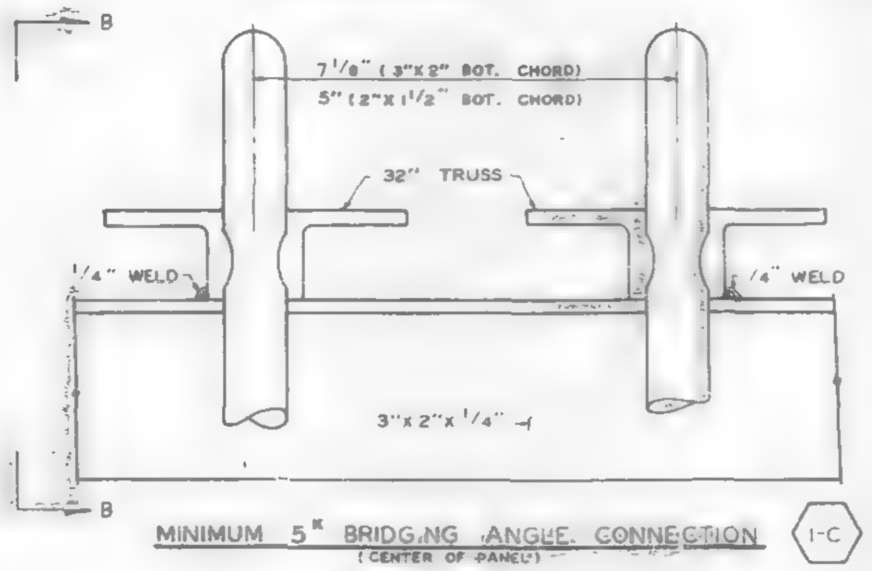


SECTION A-A

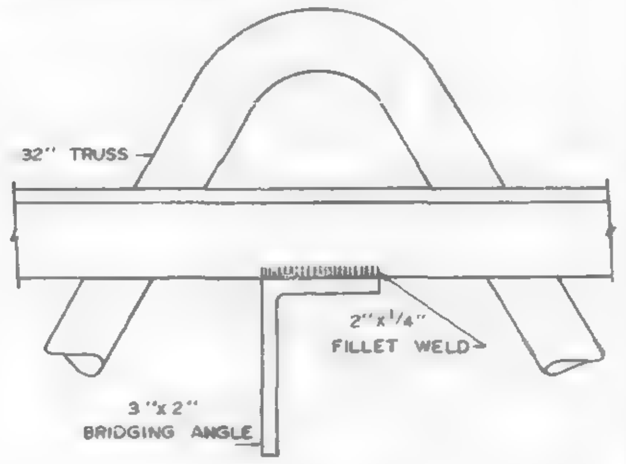


MINIMUM 5[K]

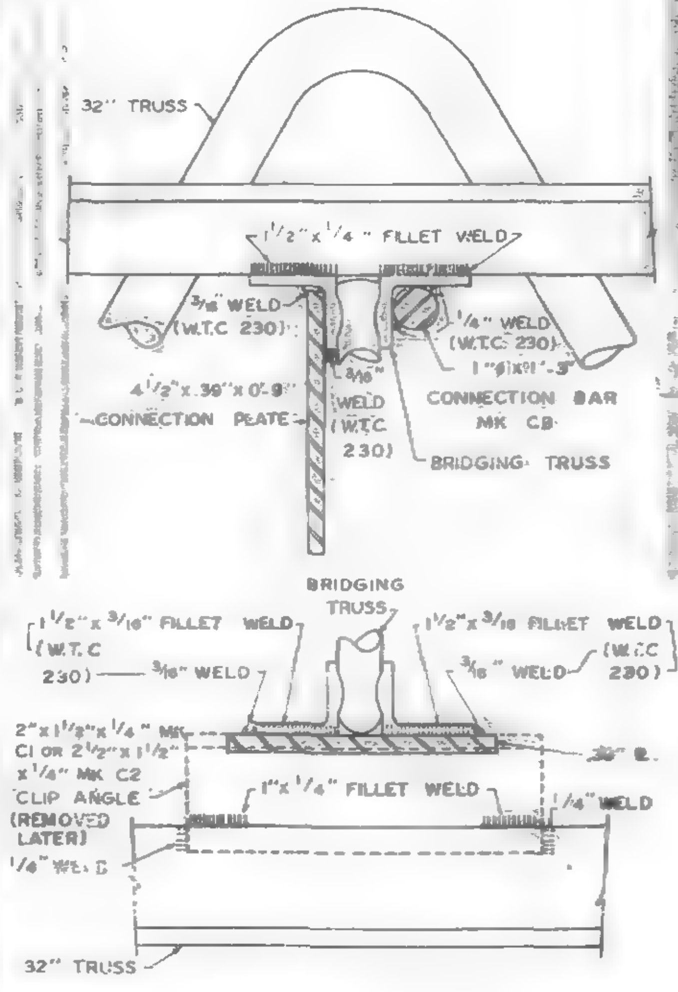
(4-C) BRIDGING TRUSS CONNECTION (CENTER OF PANEL)



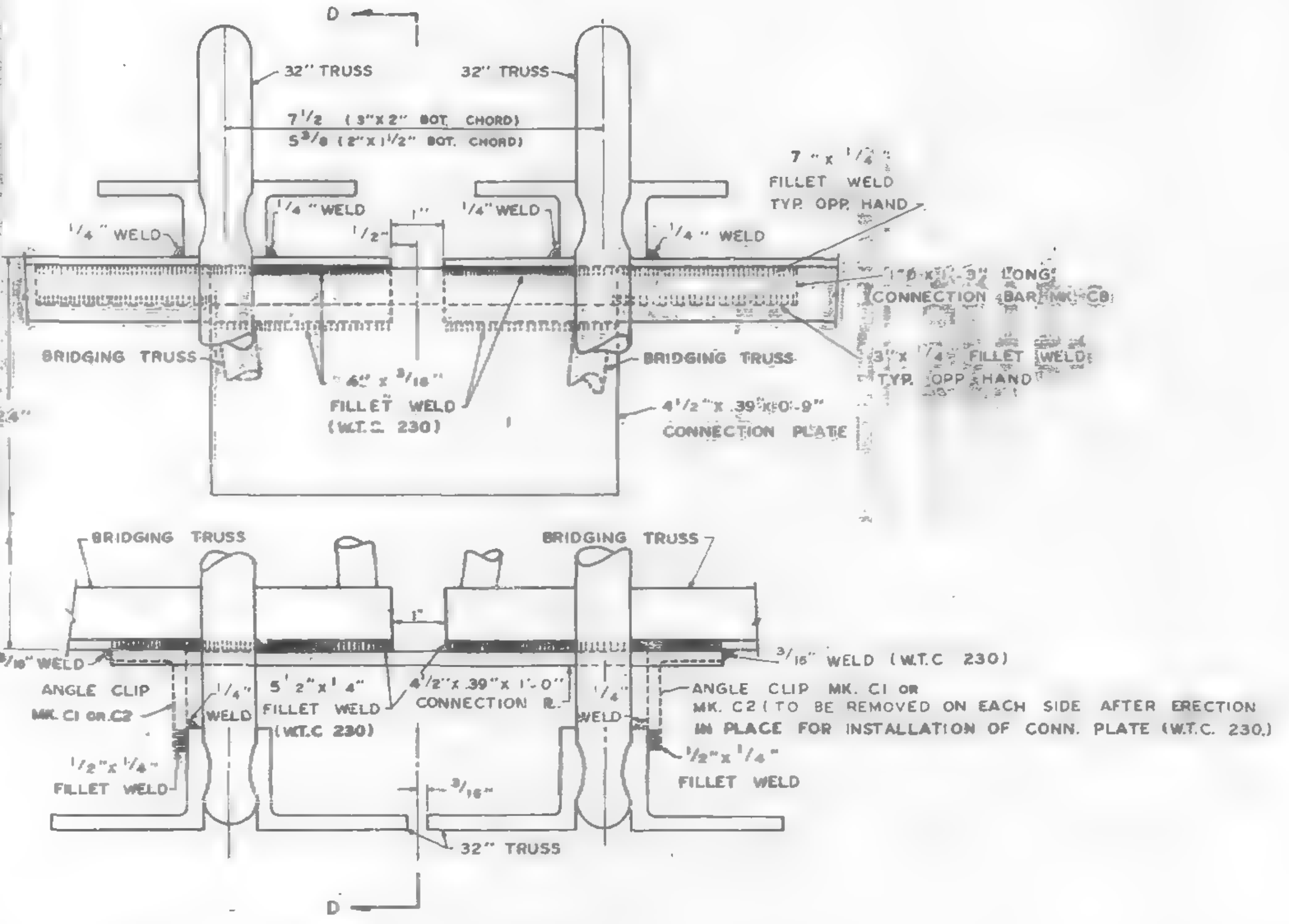
MINIMUM 5[K] BRIDGING ANGLE CONNECTION (CENTER OF PANEL) (1-C)



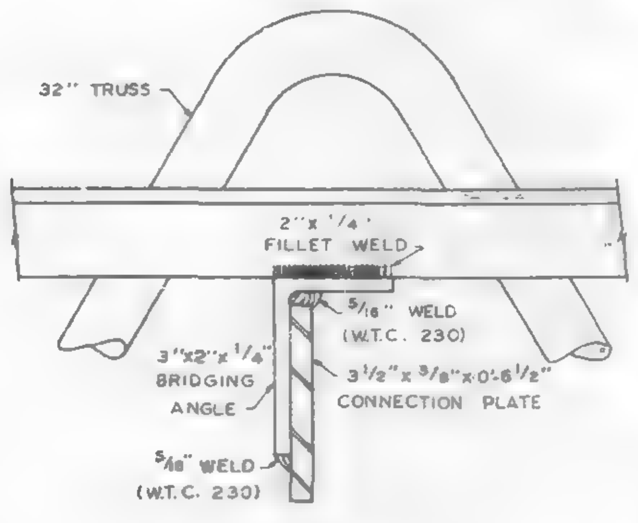
SECTION B-B



SECTION D-D

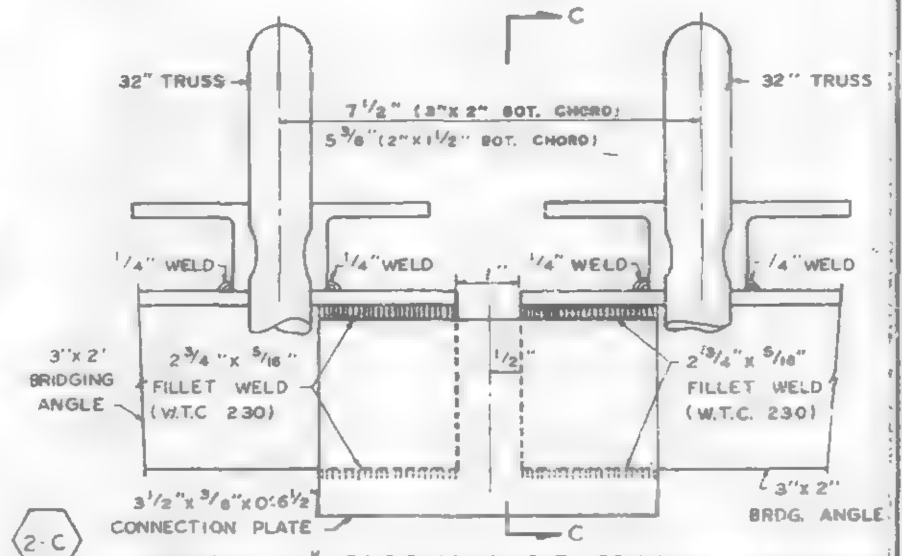


(7-C) MINIMUM 23[K] BRIDGING TRUSS CONNECTION (PANEL JOINT)



SECTION C-C

VOID



(2-C) MINIMUM 23[K] BRIDGING ANGLE CONNECTION (PANEL JOINT)

NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. CONNECTION 4-C & 5-C: WHEN CONNECTING BRIDGING TRUSSES WITH CHORD PLATES USE CLIP ANGLE C1.

REF. DRWG.

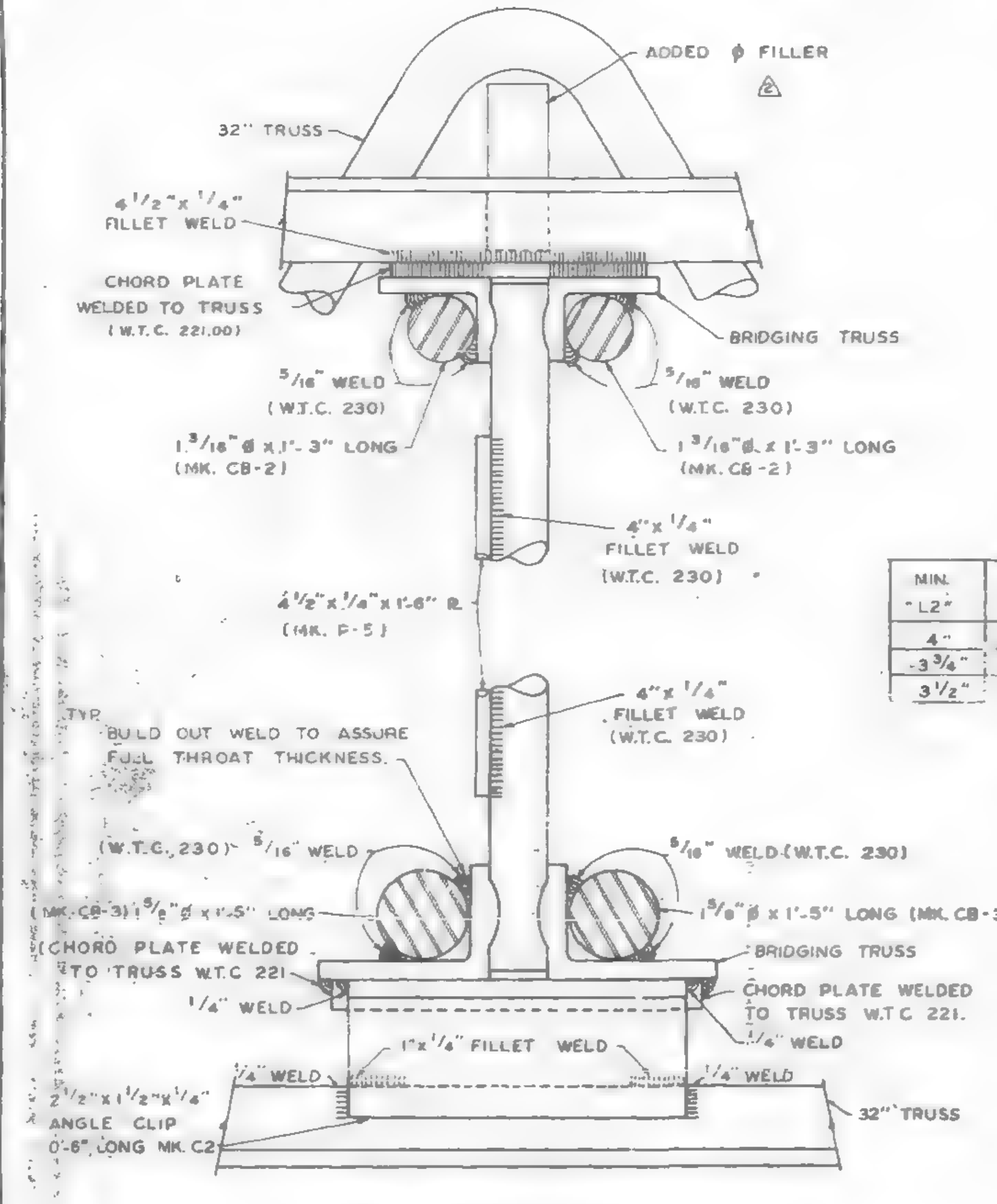
7-AB4-15	5-6-68
7-AB4-16	5-6-68

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

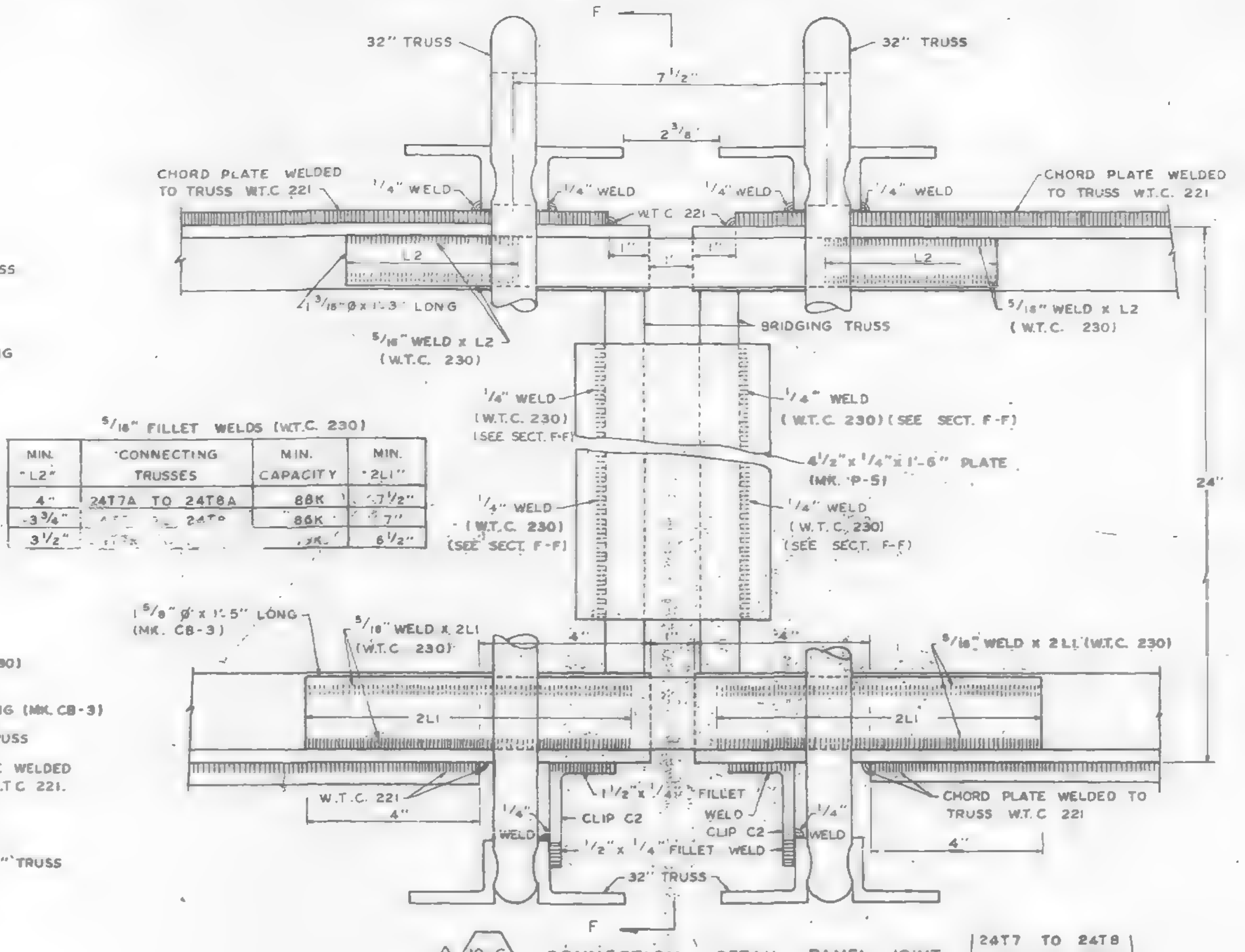
5/17/68

STANDARD CONNECTION DETAILS 1-C, 2-C, 4-C, 5-C & 7-C

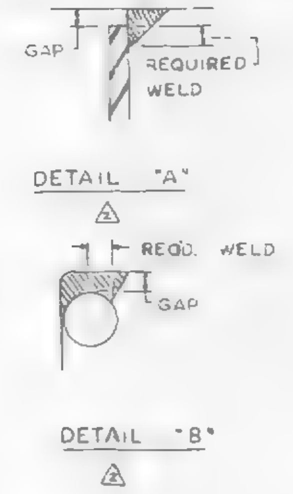
FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT: MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A.	DATE.	DRAWN BY: [signature] DATE: MAY 14, 1968	
APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER		FABRICATION CONT NO. W.T.C. 221	SHEET NO. CD 201



SECTION F-F

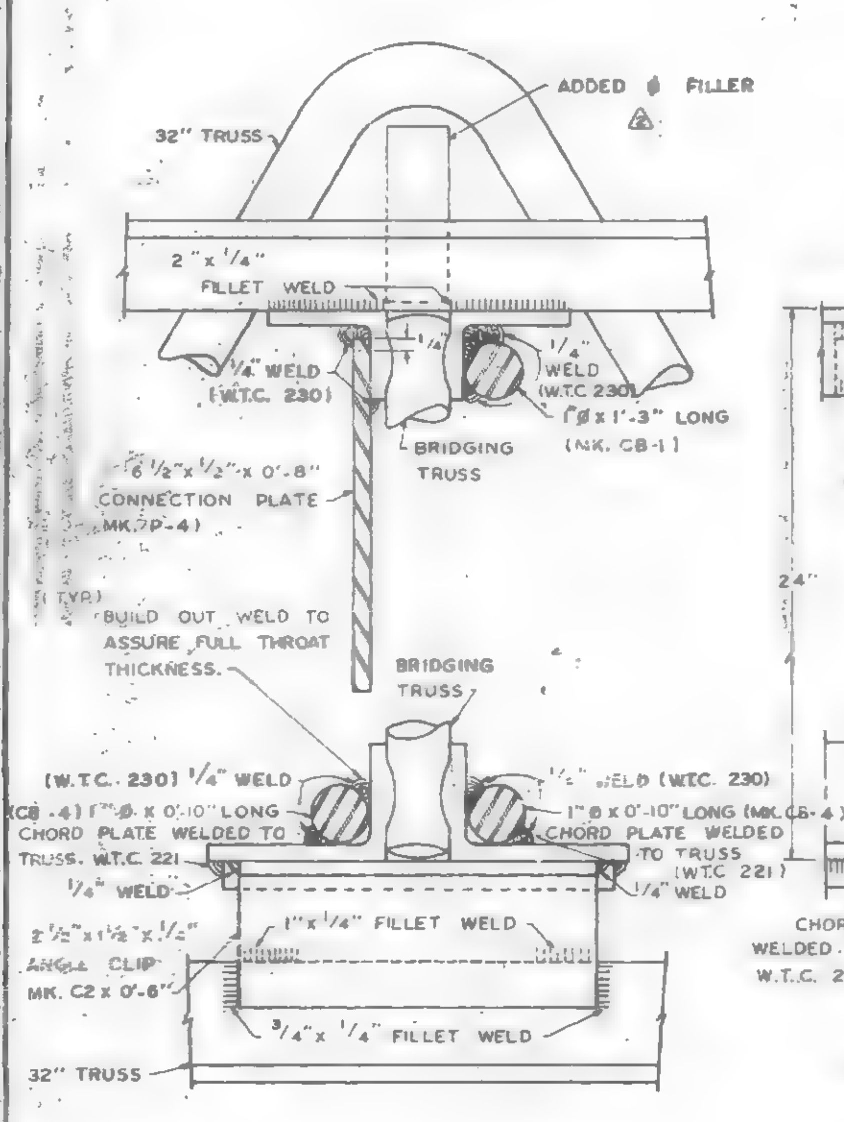


10-C CONNECTION DETAIL PANEL JOINT (24T7 TO 24T8, 24T7A TO 24T8A, 24T7B TO 24T8B)

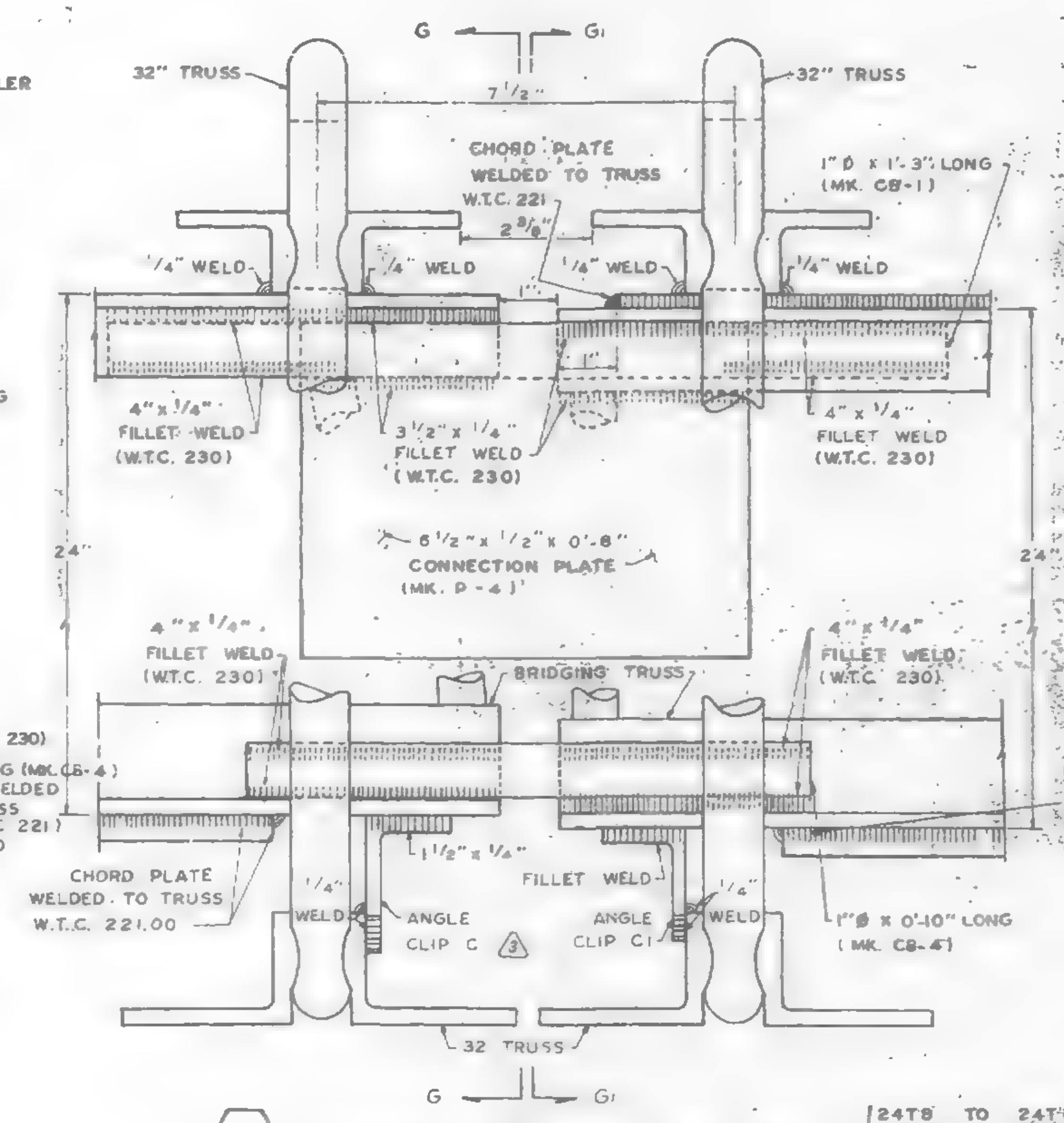


LIST OF FLOOR CONNECTION IDENTIFICATIONS

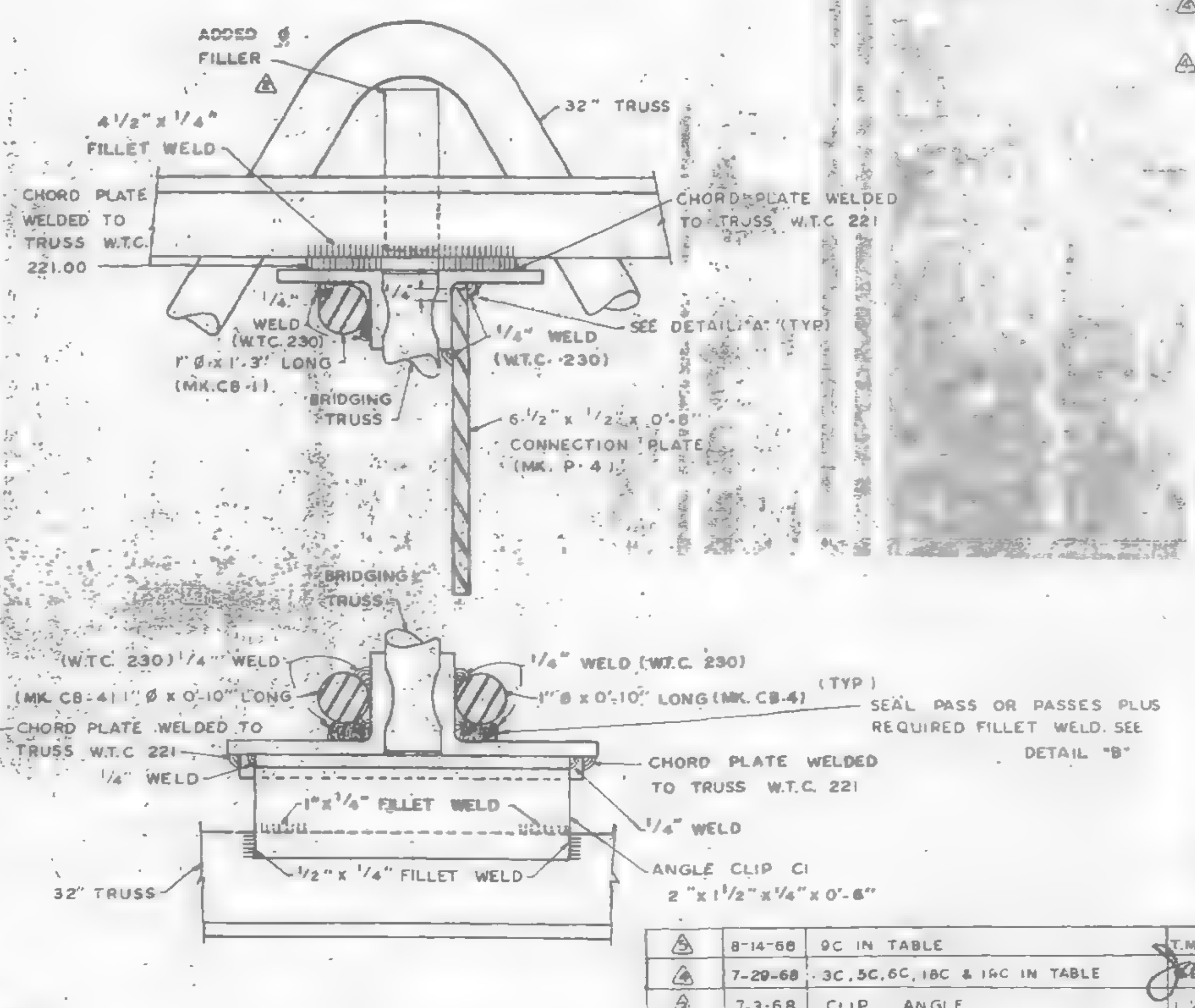
Connection Designation	Description	Drawing No.
1C	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Interior Panel Joints	CD 201
2C	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Panel Joints (Except Special Cases 13C, 14C & 15C)	CD 201
⚠4 3C	Connection of 3" x 2" x 1/4" Bridging Angles with C32T4	CD 204
4CA	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels A, B, BR, C and CR)	CD 201
4CB	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels H, HR, J, K, KR, M and MR)	CD 201
⚠4 5C	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels D, DR, E, ER, F, FR, G and GR except 6-C Connections in Panel F and FR)	CD 201
⚠4 6C	Connection of 24T7, 24T7A, 24T7B and 24T14 to the C32T4	CD 201
7C	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints Except Special Cases 8C, 10C &11C. 16C & 17C	CD 20[illegible]
8C	Connections of the following Bridging Trusses at Panel Joints: 24T8 to 24T10; 24T8A to 24T10A; 24T8B to 24T10B	CD 2[illegible]
⚠5 9C	Connections of the following Bridging Trusses at Panel Joints: 24T9 to 24T11A; 24T9A to 24T11A	CD 2[illegible]
10C	Connections of the following Bridging Trusses at Panel Joints: 24T8 to 24T7; 24T8A to 24T7A; 24T8B to 24T7B	CD 202
11C	Connection of 24T12 or 24T13B Bridging Truss with the 24T10, 24T10A or 24T10B Bridging at Panel Joints	CD 204
12C	Reserved	
13C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T3 Trusses	CD 209
14C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T10 Trusses	CD 207
15C	Connection of 3" x 2' x 1/4" Bridging Angle at double C32T6 Trusses with a C32T4 Truss	CD 205
16C	Connection of 24T9 Bridging Truss at double C32T6 Trusses with double C32T9 Trusses	CD 2[illegible]
17C	Connection of 24T9A Bridging Truss at double C32T6 Trusses with double C32T11 Trusses	CD 2[illegible]
⚠4 18C	Connection of 3" x 2' x 1/4" Bridging Angle with the double C32T3 trusses in Panel E & ER at second line of bridging from core end	CD 204
⚠4 19C	Connection of 3" x 2' x 1/4" Bridging Angle with the double C32T2 Trusses at the Panel Joint of Panels E to Panel D or Panel ER to Panel DR at second line of bridging from core end	CD 204



SECTION G-G



8-C CONNECTION DETAIL PANEL JOINT (24T8 TO 24T10, 24T8A TO 24T10A, 24T8B TO 24T10B)



SECTION G1-G1

REF. DRWG.

7-AB4-18	5-6-68
7-AB4-18.1	5-6-68

NOTE.

1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. ⚠2 ALL PLATES & ⌀ SPLICE BARS TO BE ASTM A36

NO.	DATE	REVISION	BY
5	8-14-68	9C IN TABLE	T.M.C.
4	7-29-68	3C, 5C, 6C, 18C & 19C IN TABLE	
3	7-3-68	CLIP ANGLE	L.W.H.
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD - CORRECTIONS	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 8C, 10-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS

APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A. DATE 8/29/68

APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE ______

DETAILED BY: A.C. WEBER

DESIGN DRAWING NO ______ PLATE ______

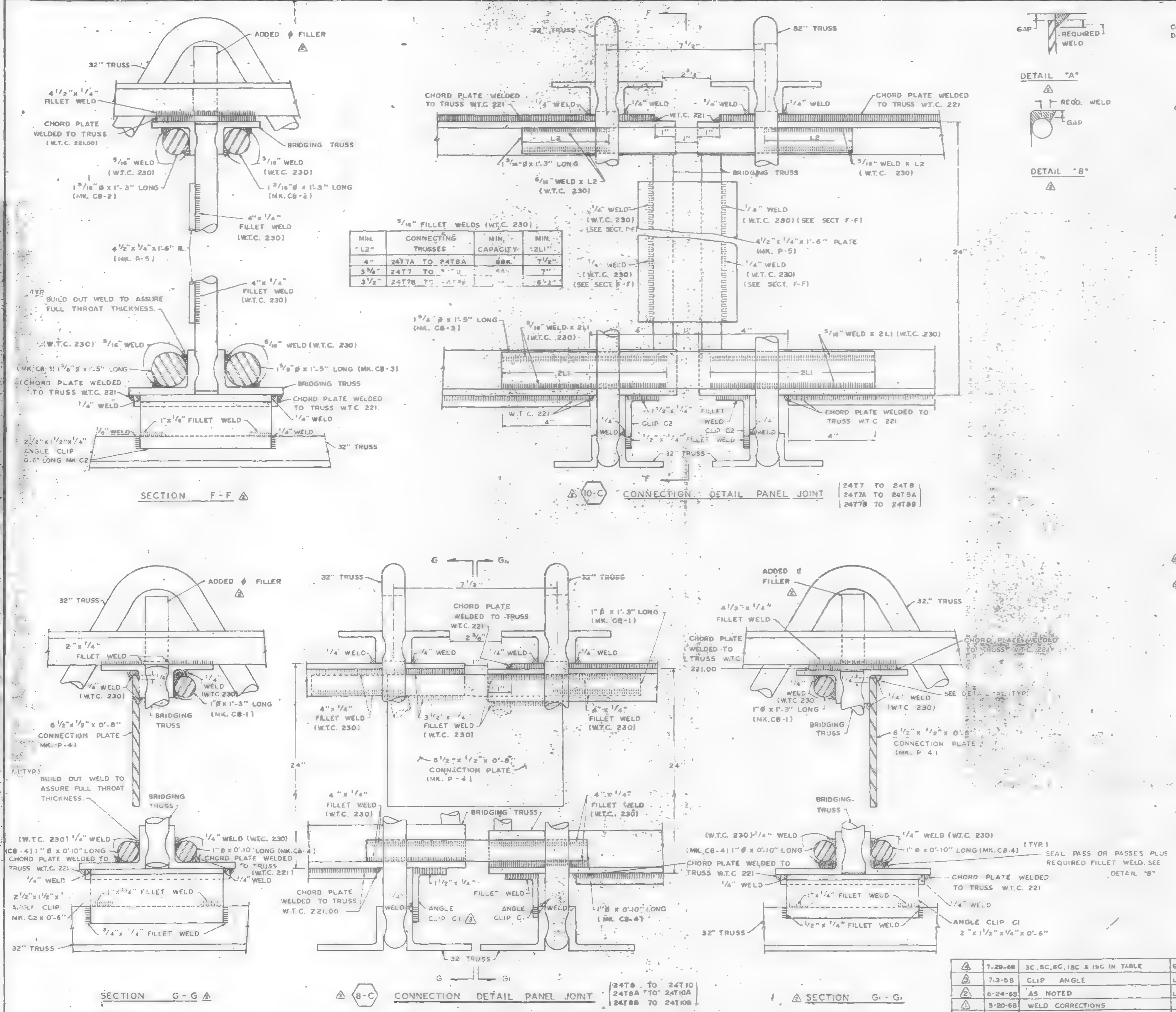
DRAWN BY: [initials] DATE: MAY 14, 1968

CHECKED BY: T.M. CHURA DATE: MAY 15, 1968

IN CHARGE OF PROD. DEV.

FABRICATION CONT. NO W.T.C. 221

SHEET NO. CD 202



5/16" FILLET WELDS (W.T.C. 230)

MIN. "L2"	CONNECTING TRUSSES	MIN. CAPACITY	MIN. "2L1"
4"	24T7A TO 24T8A	88K	7 1/2"
3 3/4"	24T7 TO [illegible]	[illegible]	7"
3 1/2"	24T7B TO [illegible]	[illegible]	6 1/2"

LIST OF FLOOR CONNECTION IDENTIFICATIONS

Connection Designation	Description	Drawing No.
1C	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Interior Panel Joints	CD 201
2C	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Panel Joints (Except Special Cases 13C, 14C & 15C)	CD 201
⚠4 3C	Connection of 3" x 2" x 1/4" Bridging Angles with C32T4	CD 204
4CA	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels A, B, BR, C and CR)	CD 201
4CB	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels H, HR, J, K, KR, M and MR)	CD 201
⚠4 5C	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels D, DR, E, ER, F, FR, G and GR except 6-C connections in Panel F and FR)	CD 201
⚠4 6C	Connection of 24T7, 24T7A, 24T7B and 24T14 to the C32T4	CD 201
7C	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints Except Special Cases 8C, 10C & 11C, 16C & 17C	CD 201
8C	Connections of the following Bridging Trusses at Panel Joints 24T8 to 24T10 24T8A to 24T10A 24T8B to 24T10B	CD 202
9C	Reserved	
10C	Connections of the following Bridging Trusses at Panel Joints 24T to 24T7 24T[illegible] to 24T7A 24T[illegible]B to 24T7B	CD 202
11C	Connection of 24T[illegible] or 24T13B Bridging Truss with the 24T1[illegible], 24T1[illegible] or 24T10B Bridging at Panel Joints	CD 20[illegible]
12C	Reserved	
13C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T3 Trusses	CD [illegible]
14C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T10 Trusses	CD 2[illegible]
15C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with a C32T4 Truss	CD 20[illegible]
16C	Connection of 24T9 Bridging Truss at double C32T6 Trusses with double C32T9 Trusses	CD 2[illegible]
17C	Connection of 24T9A Bridging Truss at double C32T6 Trusses with double C32T11 Trusses	CD 2[illegible]
⚠4 18C	Connection of 3" x 2" x 1/4" Bridging Angle with the double C32T3 trusses in Panel E & ER at second line of bridging from core end	CD 204
⚠4 19C	Connection of 3" x 2" x 1/4" Bridging Angle with the double C32T2 Trusses at the Panel Joint of Panels E to Panel D or Panel ER to Panel DR at second line of bridging from core end	CD 204

REF. DRWG.

7-AB4-18	5-6-68
7-AB4-18.1	5-6-68

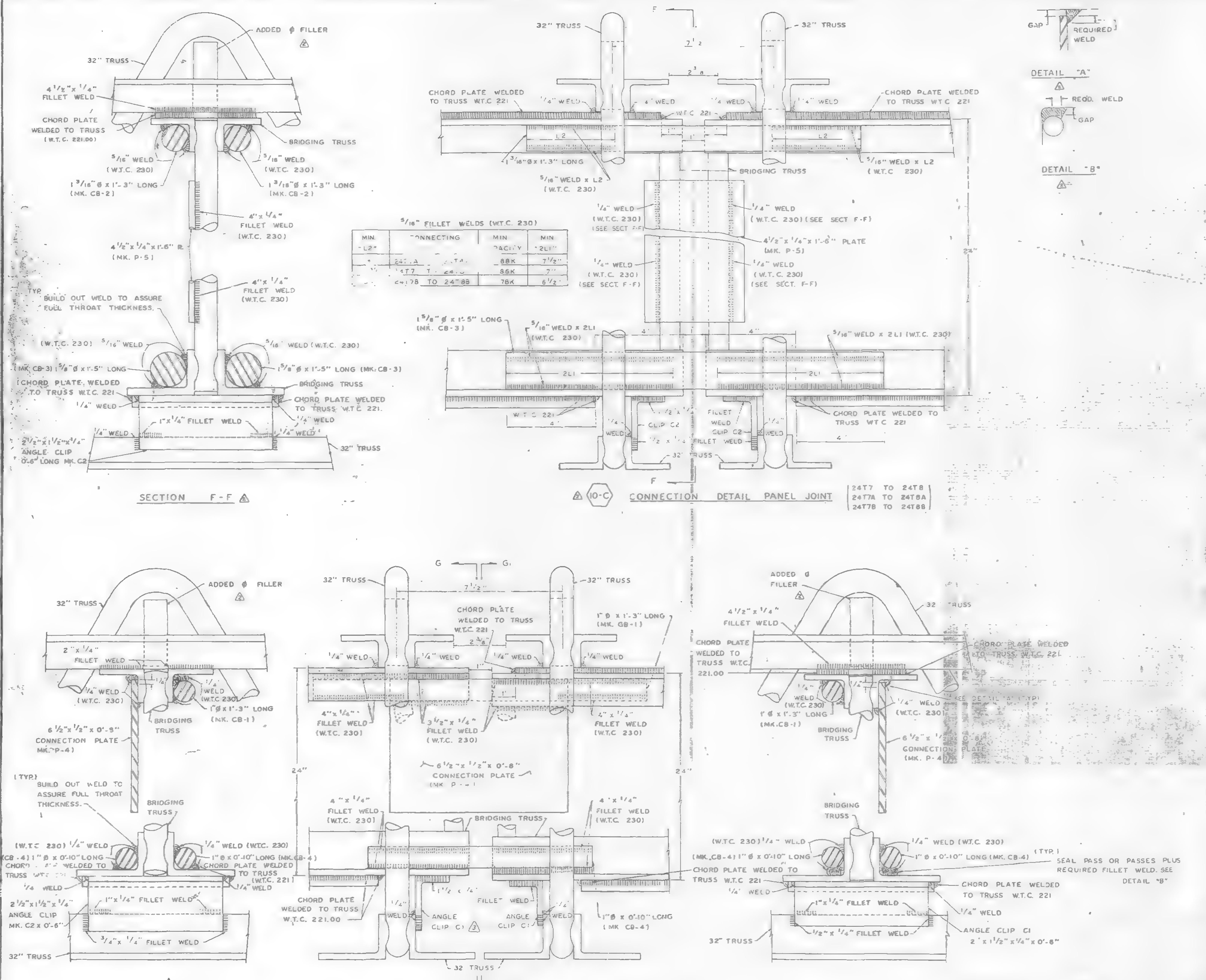
NOTE:
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. ⚠2 ALL PLATES & ⌀ SPLICE BARS TO BE ASTM A36

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 8C, 10-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. ______ PLATE ______
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A — DATE 8/16/68
DRAWN BY: [illegible] DATE: MAY 14, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR — DATE ____
CHECKED BY: T.M. CHURA DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 202

NO.	DATE	REVISION	BY
4	7-29-68	3C, 5C, 6C, 18C & 19C IN TABLE	G.D.C.
3	7-3-68	CLIP ANGLE	L.W.H
2	6-24-68	AS NOTED	L.W.H
1	5-20-68	WELD CORRECTIONS	L.W.H



SECTION F-F ⚠ — (10-C) CONNECTION DETAIL PANEL JOINT 24T7 TO 24T8, 24T7A TO 24T8A, 24T7B TO 24T8B

SECTION G-G ⚠ — (8-C) CONNECTION DETAIL PANEL JOINT 24T8 TO 24T10, 24T8A TO 24T10A, 24T8B TO 24T10B — SECTION G1-G1

LIST OF FLOOR CONNECTION IDENTIFICATIONS

[illegible] Designation	Description	Drawing No.
1	[illegible] Bridging Angles [illegible] Panel Joints	[illegible]
[illegible]	[illegible] Bridging Angles with C32 Trusses at Panel Joints (Except Special Cases [illegible])	CD [illegible]
3	Reserved	
[illegible]	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels A, B, BR, C and CR)	[illegible]
[illegible]	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels H, [illegible], J, [illegible], M and MR)	CD 204
5C	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels D, DR, E, ER, F, FR, G and GR)	CD 201
6C	Reserved	
7C	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints Except Special Cases 8C, 10C & 11C, 16C & 17C	CD 201
8C	Connections of the following Bridging Trusses at Panel Joints: 24T8 to 24T10; 24T8A to 24T10A; 24T8B to 24T10B	CD 202
9C	Reserved	
10C	Connections of the following Bridging Trusses at Panel Joints: 24T8 to 24T7; 24T8A to 24T7A; 24T8B to 24T7B	CD 202
11C	Connection of 24T12 or 24T13B Bridging Truss with the 24T10, 24T10A or 24T10B Bridging at Panel Joints	CD 204
12C	Reserved	
13C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T5 Trusses	CD 209
14C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T10 Trusses	CD 207
15C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with a C32T4 Truss	CD 205
16C	Connection of 24T9 Bridging Truss at double C32T6 Trusses with double C32T9 Trusses	CD 208
17C	Connection of 24T9A Bridging Truss at double C32T6 Trusses with double C32T11 Trusses	CD 206

REF. DRWG. 7-AB4-18 5-6-68; ⚠ 7-AB4-18.1 5-6-68

NOTES:
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN E70 SERIES OR EQUAL.
3. PLATES & ⌀ SPLICE BARS TO BE ASTM A36.

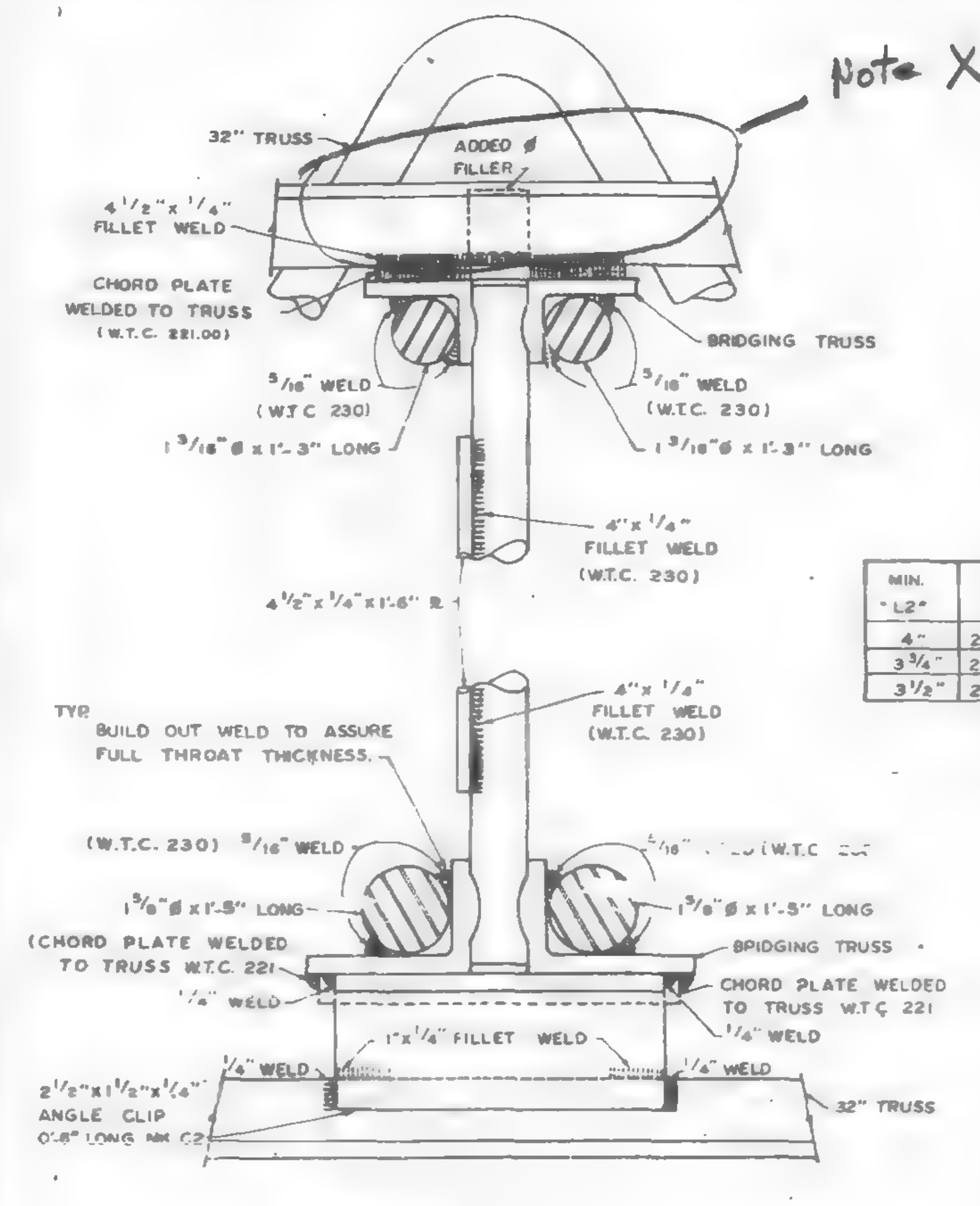
NO.	DATE	REVISION	BY
3	7-3-68	CLIP ANGLE	L.W.H.
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

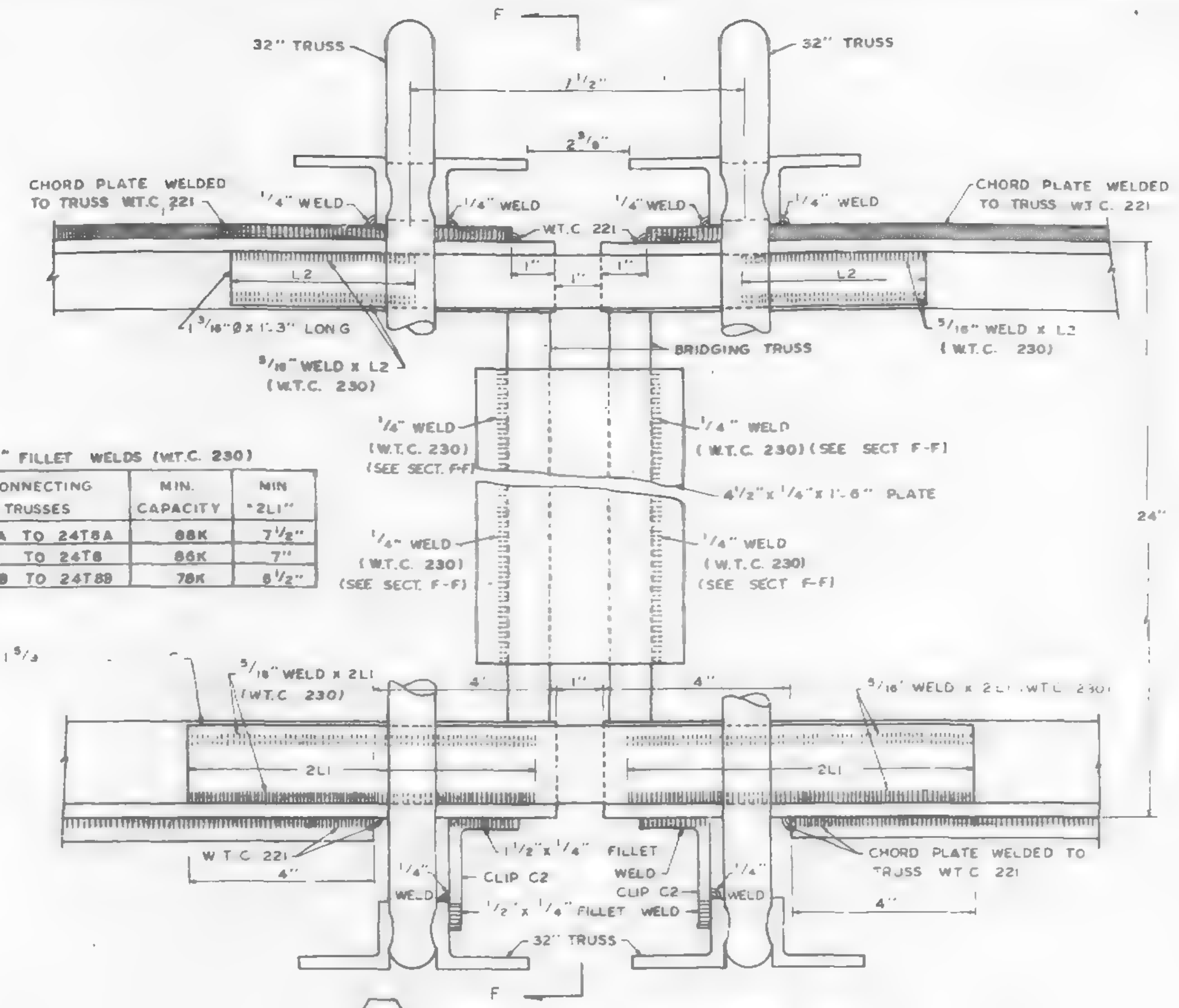
STANDARD CONNECTION DETAILS 8C, 10-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. ____ PLATE ____
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A. DATE 7/12/68
DRAWN BY [initials] DATE: MAY 14, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE ____
CHECKED BY: T.M. CHURA DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 202

Note X: Hold for determination of Plate "X" requirements



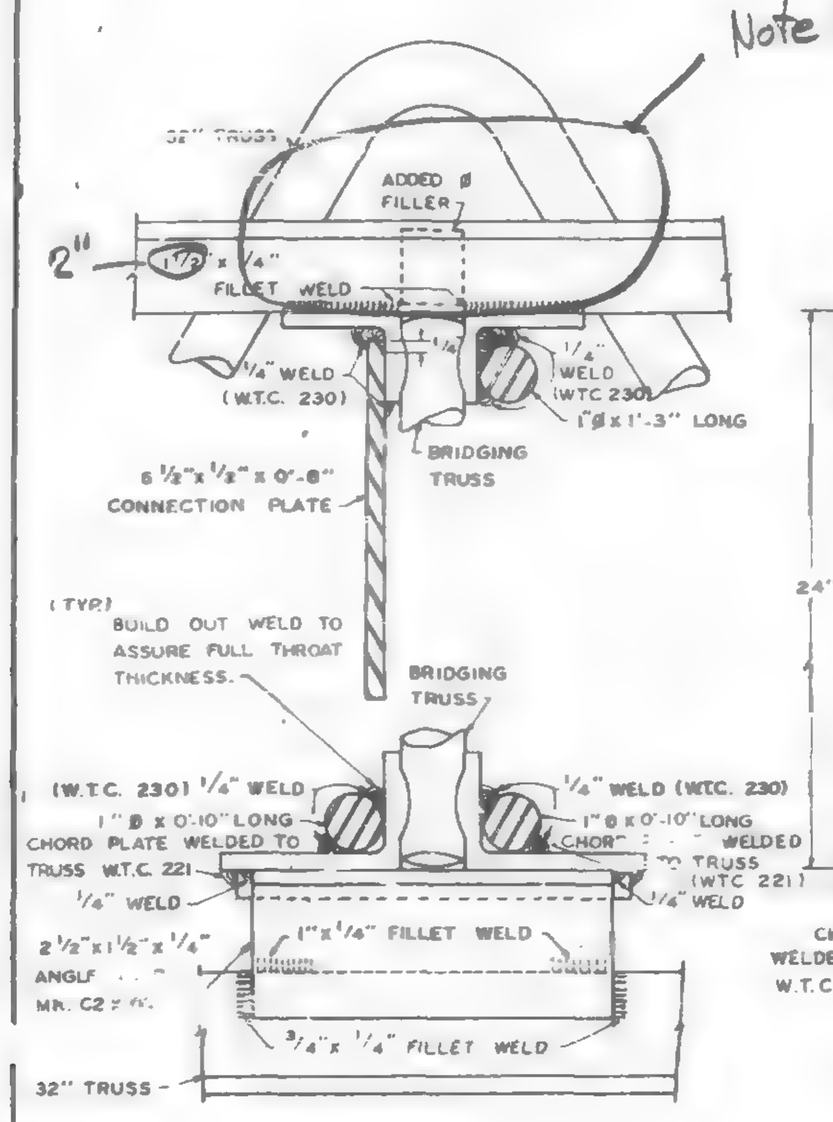
SECTION F-F



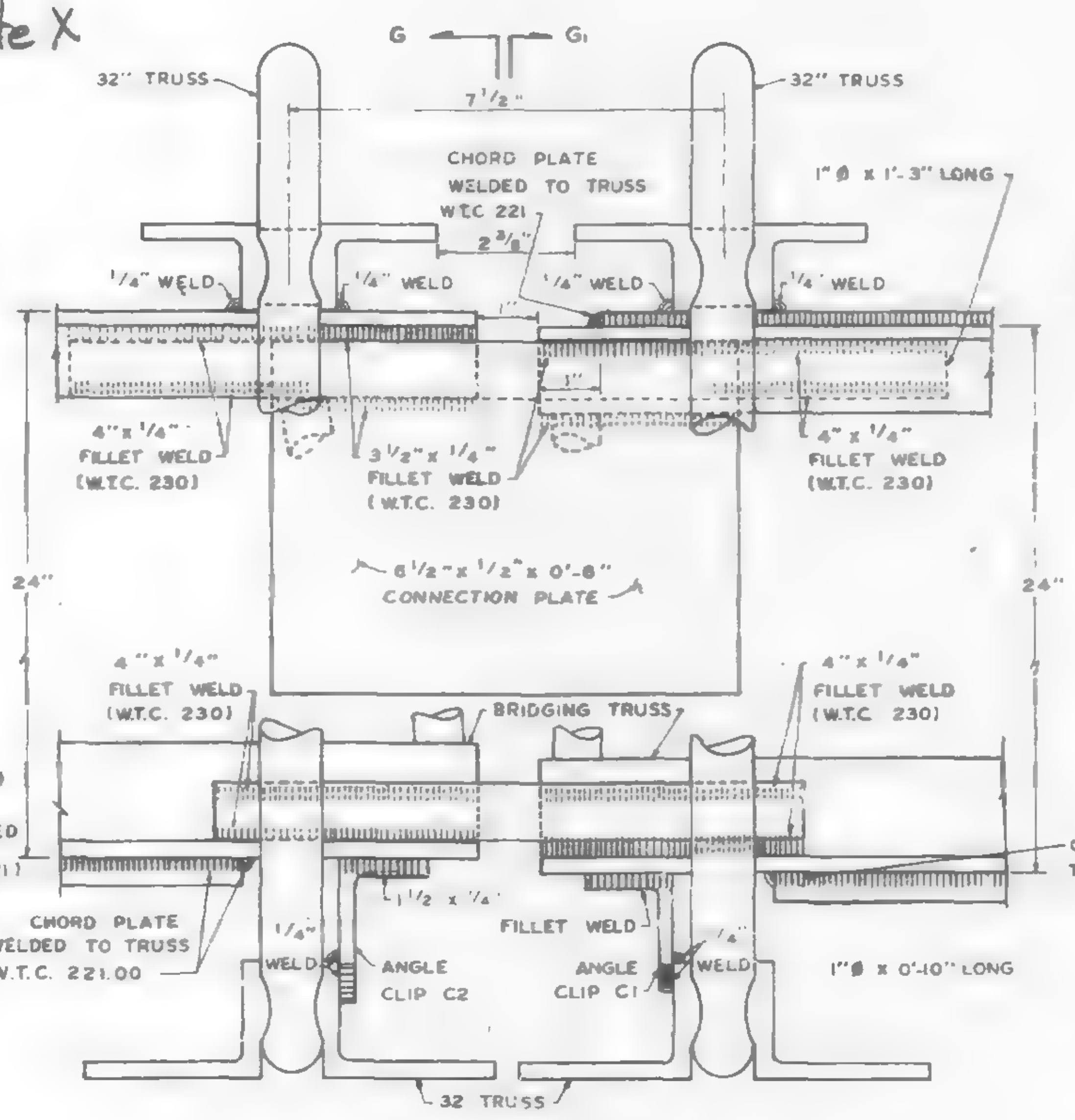
10-C CONNECTION DETAIL PANEL JOINT

5/16" FILLET WELDS (W.T.C. 230)

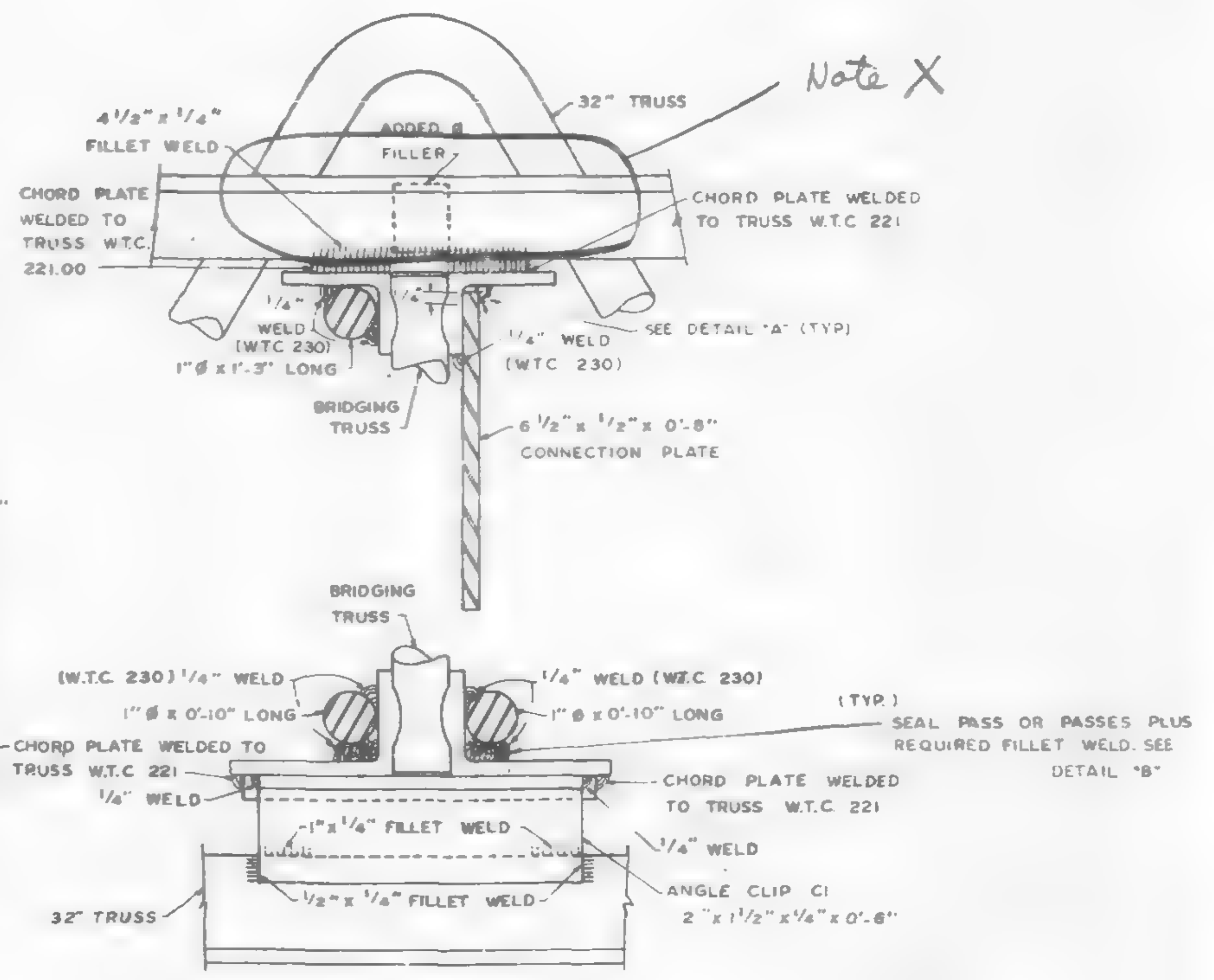
MIN. "L2"	CONNECTING TRUSSES	MIN. CAPACITY	MIN "2L1"
4"	24T7A TO 24T8A	88K	7 1/2"
3 3/4"	24T7 TO 24T8	86K	7"
3 1/2"	24T7B TO 24T8B	78K	6 1/2"



SECTION G-G



8-C CONNECTION DETAIL PANEL JOINT



SECTION G1 - G1

DETAIL "B" DETAIL "A"

REF. DRWG.	
7-A94-18	5-17-68
7-A94-18.1	5-17-68

6/4/68 WAB

NOTE:
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. ALL PLATE & ⌀ Splice Bars to be ASTM A 36

CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 8C, 10-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

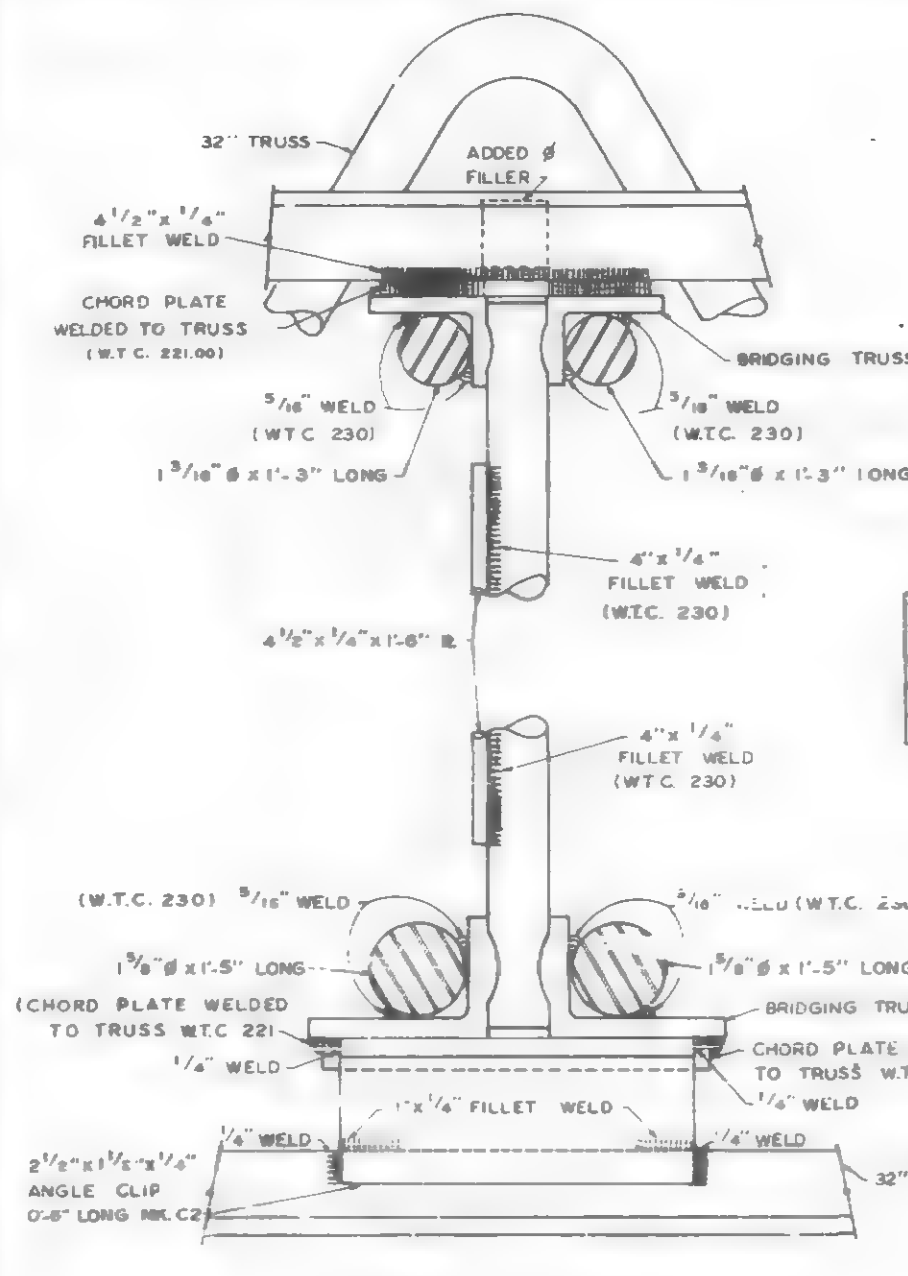
DESIGN DRAWING NO. ______ PLATE ______

APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A | DATE | DRAWN BY: [illegible] DATE: MAY 14, 1968

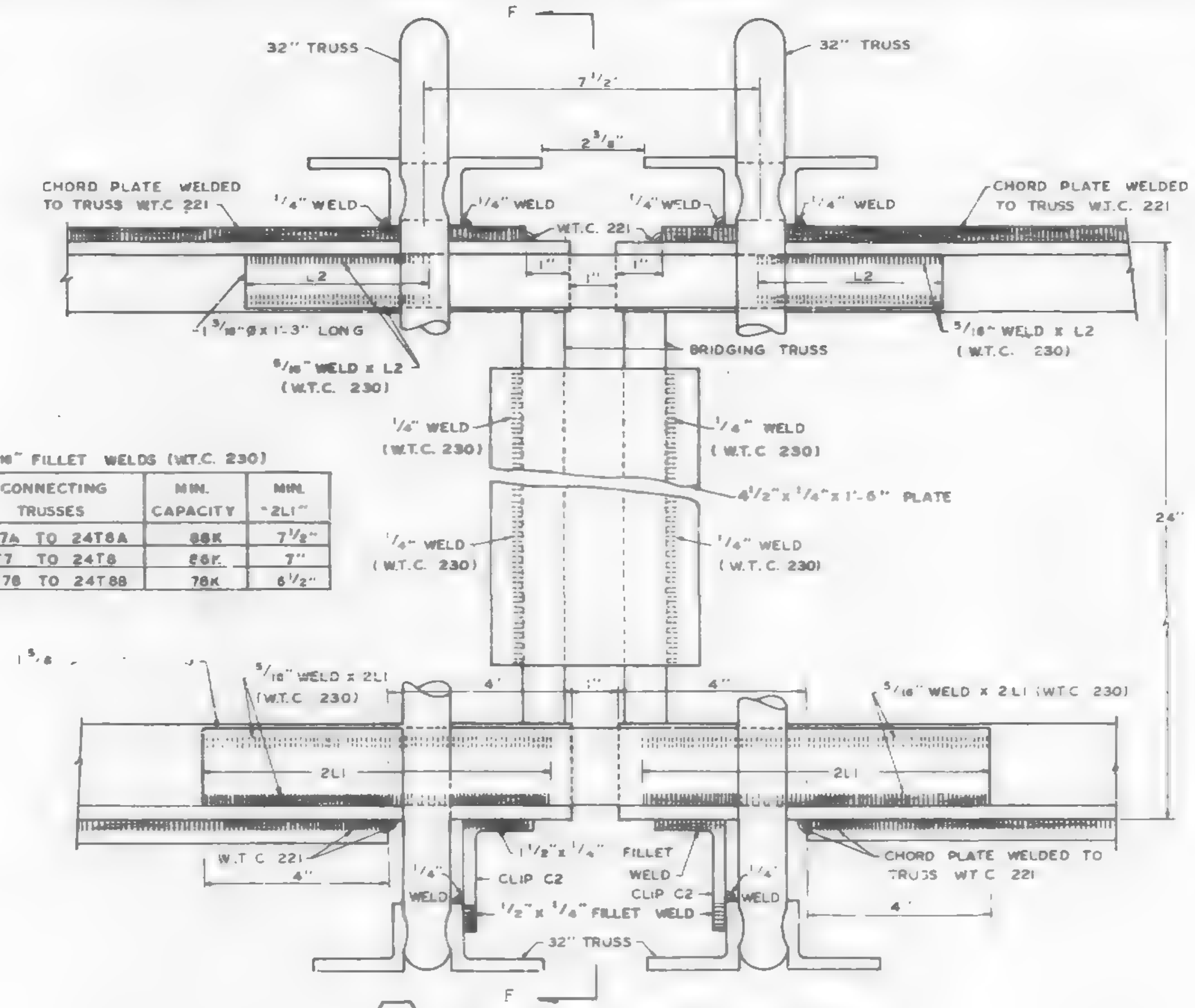
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR | DATE | CHECKED BY: T.M. CHURA DATE: MAY 15, 1968 | IN CHARGE OF PROD. DEV.

LACLEDE STEEL CO. DETAILED BY A. C. WEBER | FABRICATION CONT. NO W.T.C. 221 | SHEET NO CD 202

NO.	DATE	REVISION	BY
1	5-20-68	WELD CORRECTIONS	L.W.H.



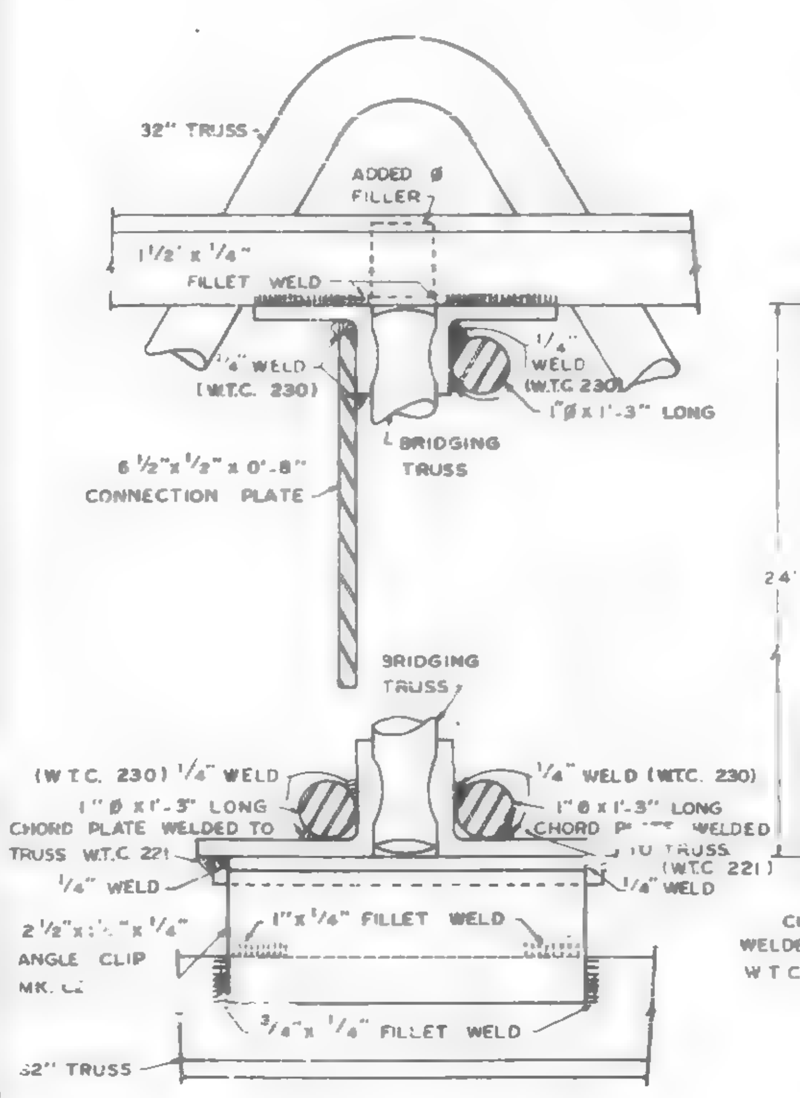
SECTION F-F



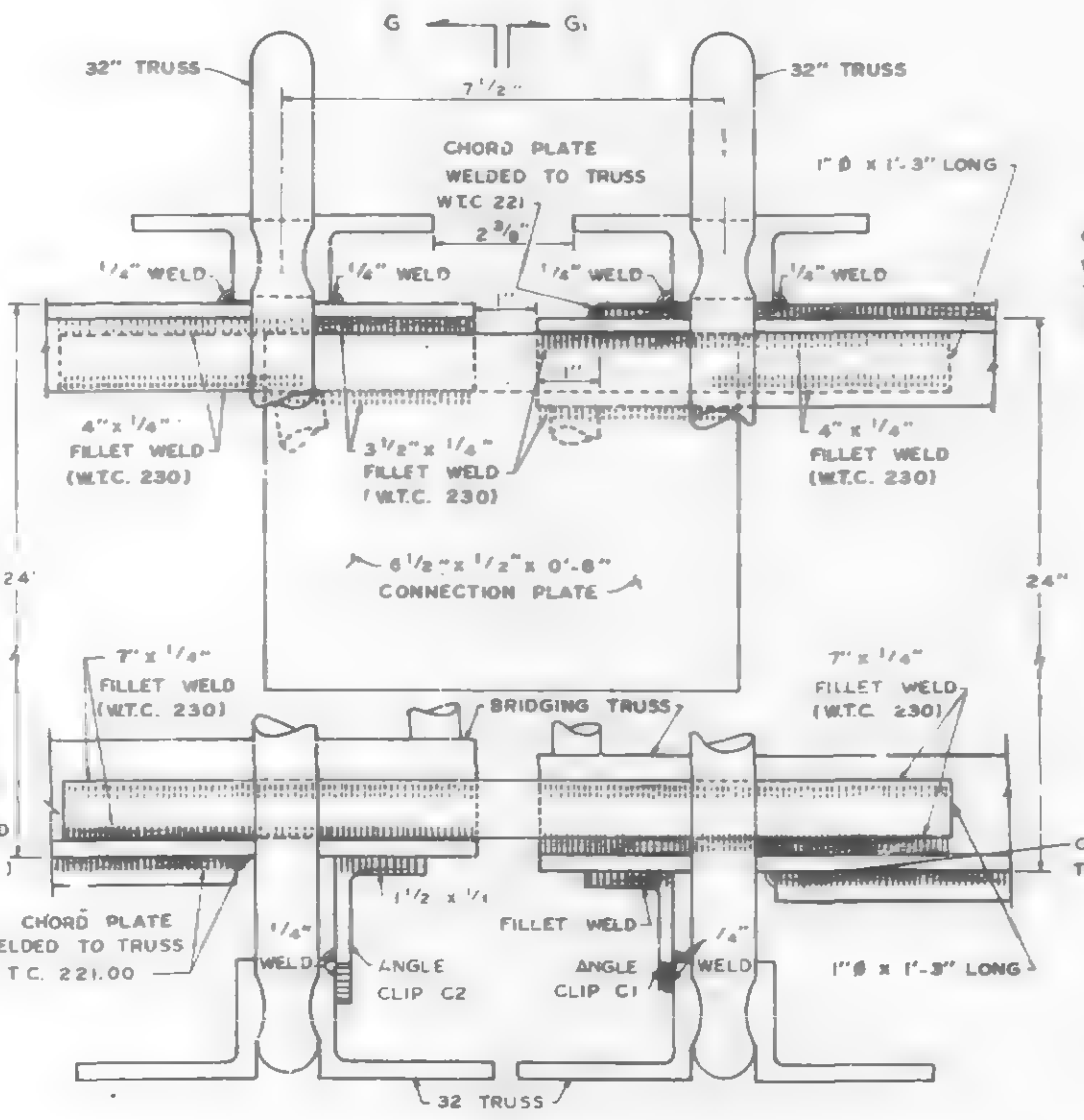
MIN. "L2"	CONNECTING TRUSSES	MIN. CAPACITY	MIN. "2L1"
4"	24T7A TO 24T8A	88K	7 1/2"
3 3/4"	24T7 TO 24T8	86K	7"
3 1/2"	24T7B TO 24T8B	78K	6 1/2"

5/16" FILLET WELDS (W.T.C. 230)

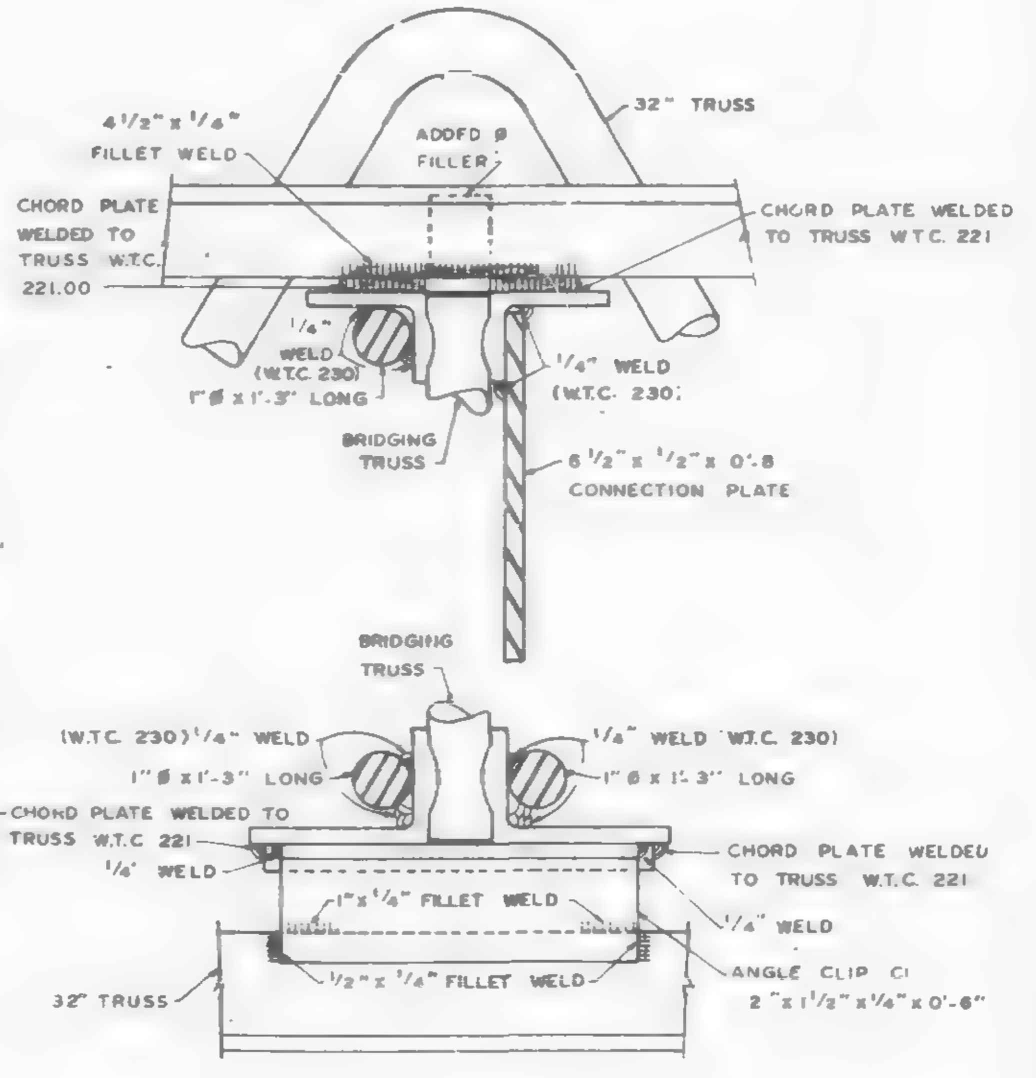
10-C CONNECTION DETAIL PANEL JOINT



SECTION G-G



8-C CONNECTION DETAIL PANEL JOINT



SECTION G1 - G1

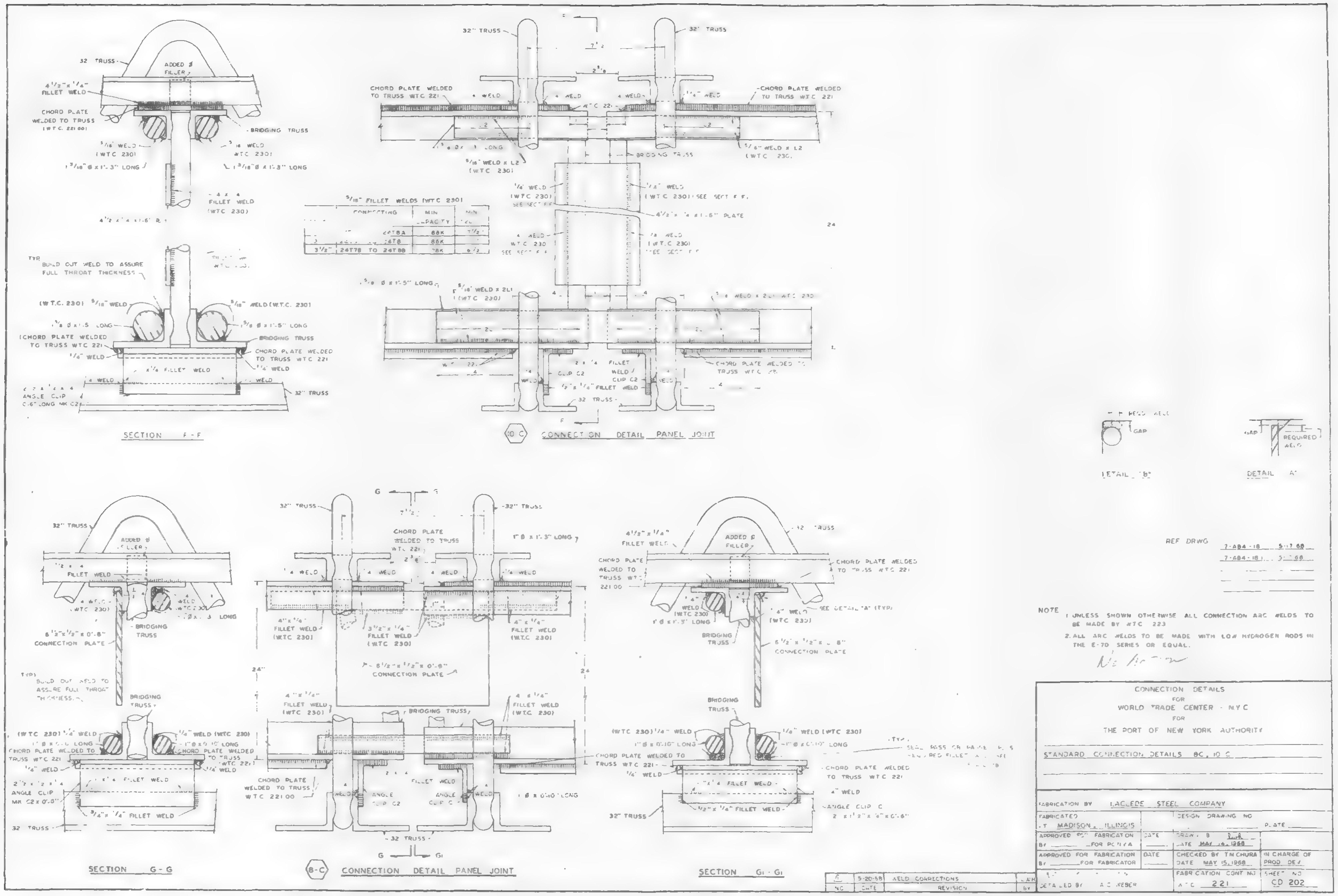
REF. DRWG
7-AB4-18 5-6-68
7-AB4-18.1 5-6-68

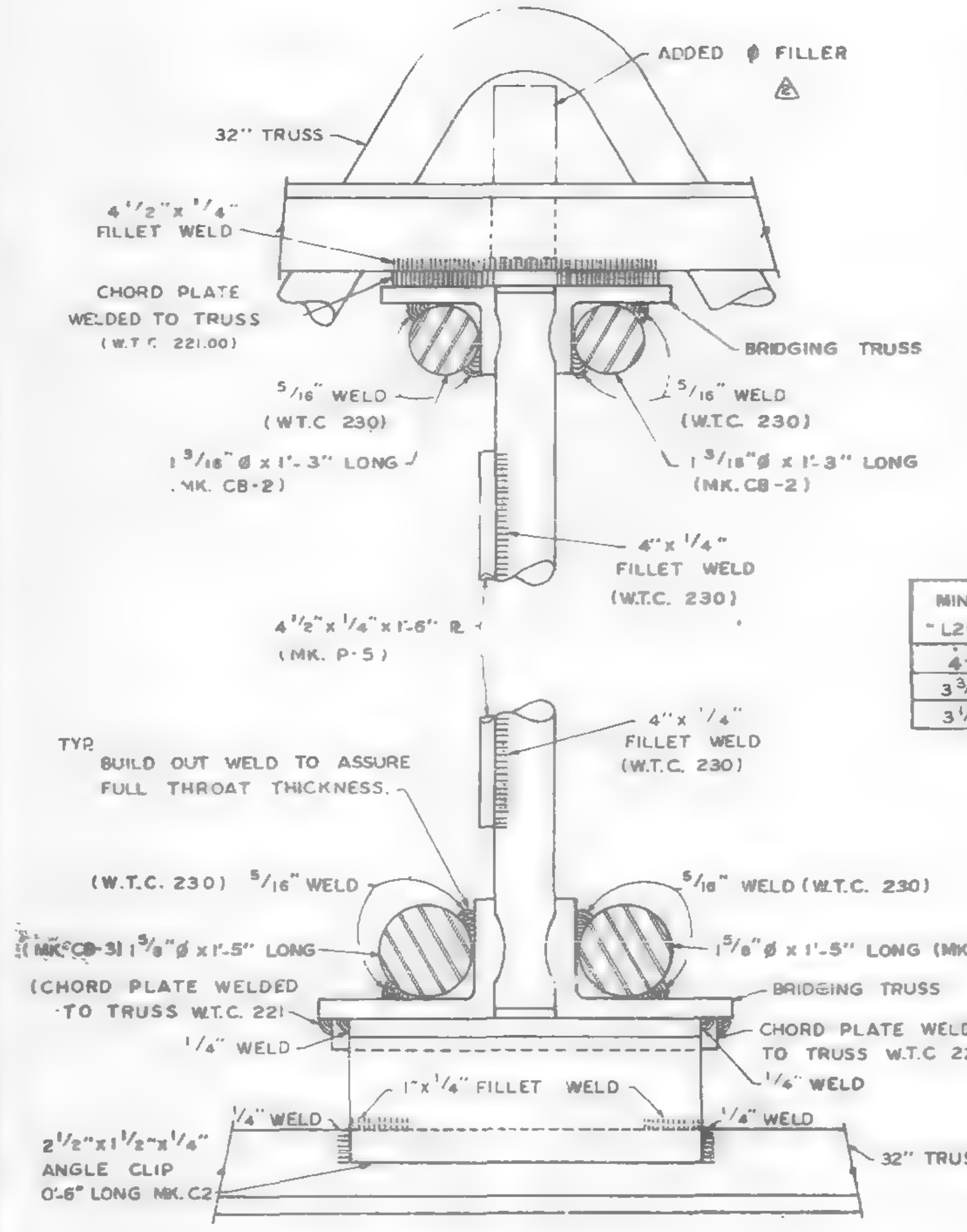
NOTE.
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

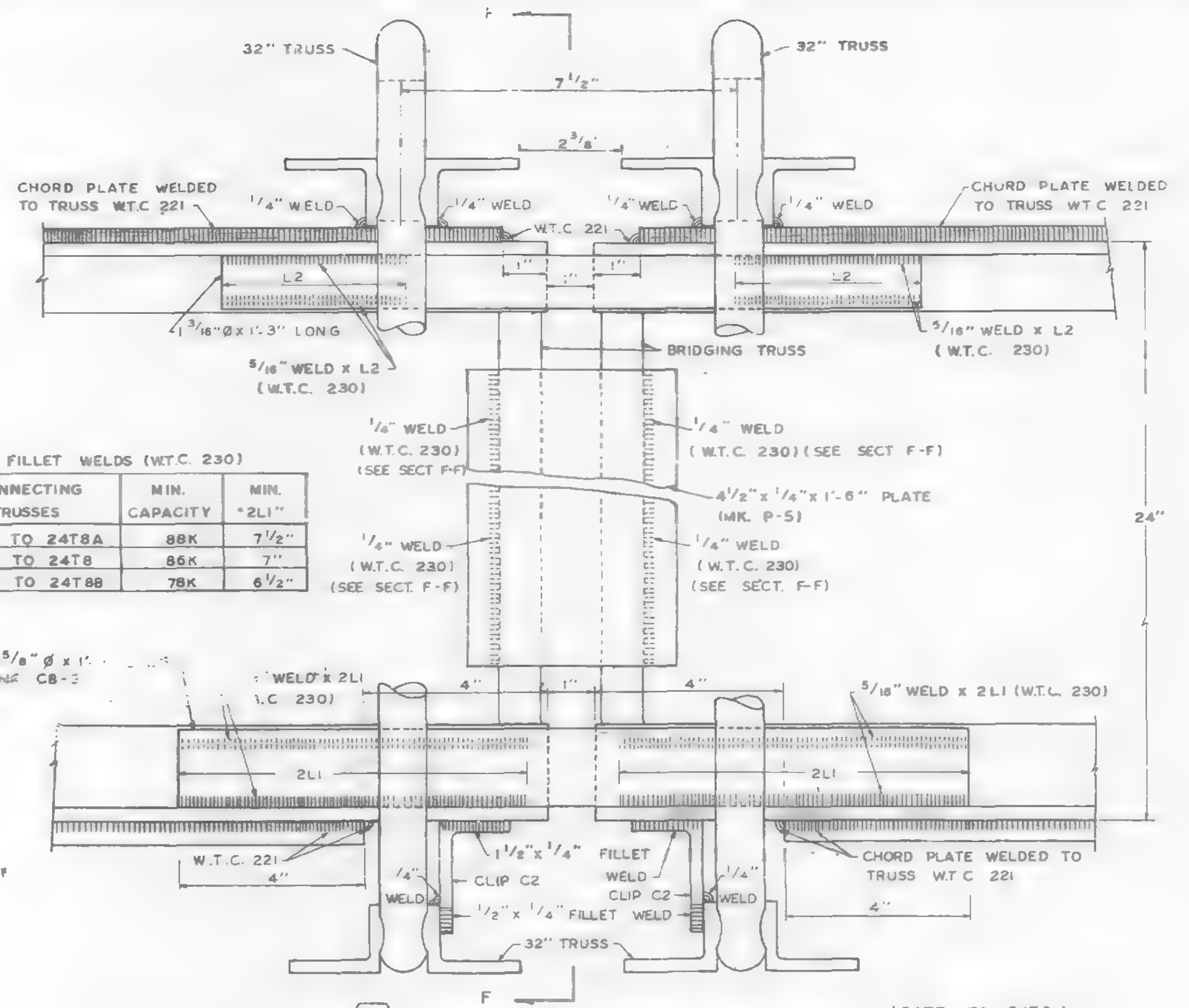
STANDARD CONNECTION DETAILS 8C, 10 C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT. MADISON, ILLINOIS
DESIGN DRAWING NO. PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A DATE
DRAWN BY [signature] DATE: MAY 14, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 202


SECTION F-F
CONNECTION DETAIL PANEL JOINT
SECTION G-G
CONNECTION DETAIL PANEL JOINT
SECTION G1-G1
DETAIL "B"
DETAIL "A"
REF DRWG
NOTE
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY WTC 223
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY
STANDARD CONNECTION DETAILS 8C, 10 C
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO
PLATE
APPROVED FOR FABRICATION BY FOR PONYA
DATE
DRAWN BY
DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
DATE
CHECKED BY T.M. CHURA
DATE MAY 15, 1968
IN CHARGE OF PROD DEV
DETAILED BY A.C. WEBER
FABRICATION CONT NO
WTC 221
SHEET NO
CD 202
WELD CORRECTIONS
NO
DATE
REVISION
BY



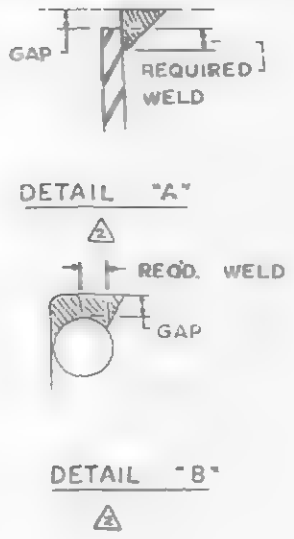
SECTION F-F



CONNECTION DETAIL PANEL JOINT 10-C — 24T7 TO 24T8, 24T7A TO 24T8A, 24T7B TO 24T8B

5/16" FILLET WELDS (W.T.C. 230)

MIN. "L2"	CONNECTING TRUSSES	MIN. CAPACITY	MIN. "2L1"
4"	24T7A TO 24T8A	88K	7 1/2"
3 3/4"	24T7 TO 24T8	86K	7"
3 1/2"	24T7B TO 24T8B	78K	6 1/2"



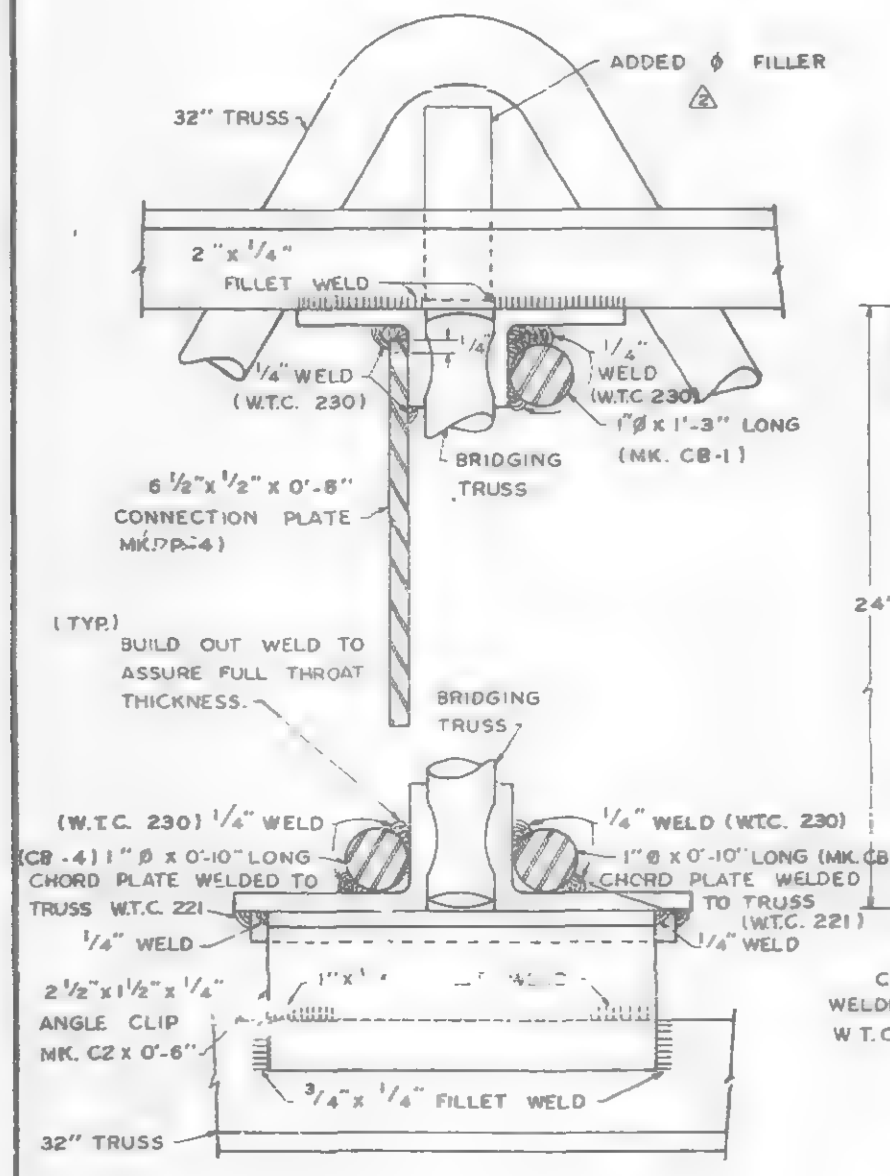
LIST OF FLOOR CONNECTION IDENTIFICATIONS

Connection Designation	Description	Drawing No.
1C	[illegible] x 2" x 1/4" Bridging Angles [illegible] at Interior Panel Joints	CD 201
2C	[illegible] x 2" x 1/4" Bridging Angles [illegible] Trusses at Panel Joints (Except [illegible] 14C & 15C)	CD 201
[illegible]	Reserve	
[illegible]	Connection of [illegible] Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels A, [illegible])	CD 201
[illegible]	Connection of [illegible] Bridging Trusses with C32 [illegible] Interior Panel Joints (Panels H, [illegible] and MR)	CD 201
5	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels D, [illegible] and GR)	CD 201
6C	Reserve	
[illegible]	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints Except Special Cases 8C, 10C & 11C, 16C & 17C	CD 201
8C	Connections of the following Bridging Trusses at Panel Joints 24T8 to 24T10 24T8 to 24T10A 24T8 to 24T10B	CD 202
9C	Reserved	
10C	Connections of the following Bridging Trusses at Panel Joints 24T8 to 24T7 24T8A to 24T7A 24T8B to 24T7B	CD 202
11C	Connection of 24T12 or 24T13B Bridging Truss with the 24T10, 24T10A or 24T10B Bridging at Panel Joints	CD 204
12C	Reserved	
13C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T8 Trusses	CD 209
14C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with double C32T10 Trusses	CD 207
15C	Connection of 3" x 2" x 1/4" Bridging Angle at double C32T6 Trusses with a C32T4 Truss	CD 205
16C	Connection of 24T9 Bridging Truss at double C32T6 Trusses with double C32T9 Trusses	CD 208
17C	Connection of 24T9A Bridging Truss at double C32T6 Trusses with double C32T11 Trusses	CD 206

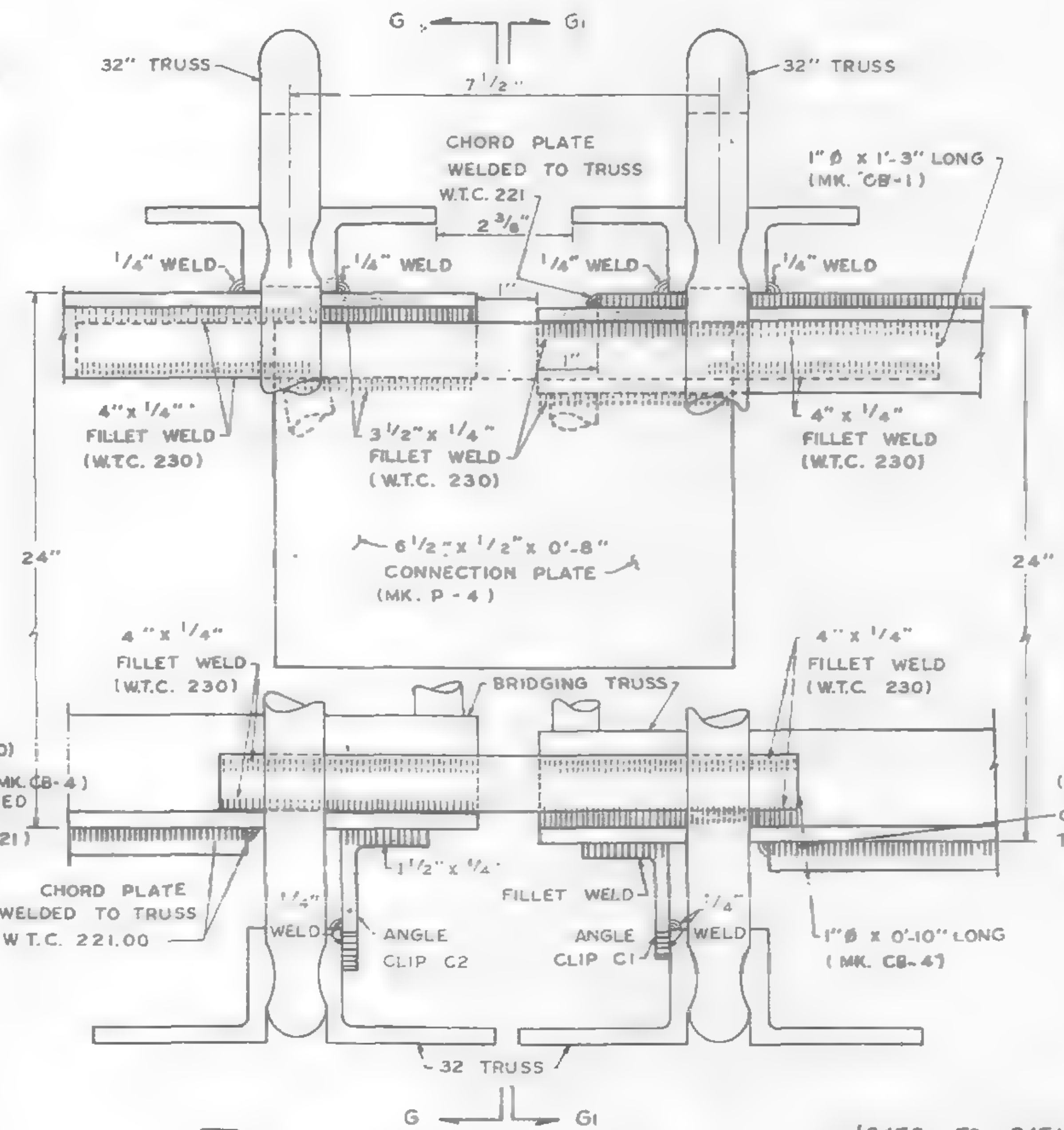
REF. DRWG.

7-AB4-18	5-6-68
7-AB4-18.1	5-6-68

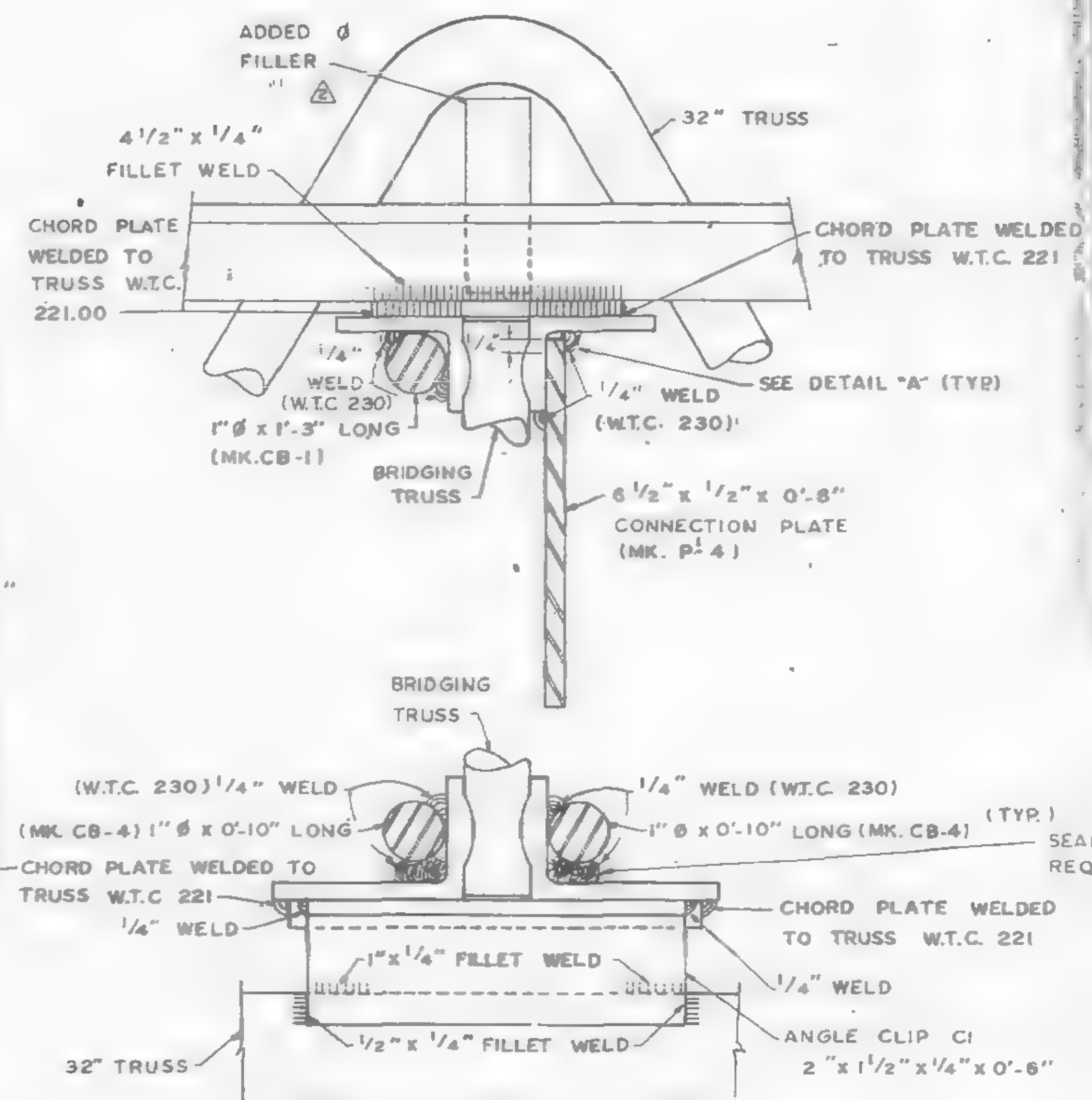
NOTE:
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. ALL PLATES & ϕ SPLICE BARS TO BE ASTM A36



SECTION G-G



CONNECTION DETAIL PANEL JOINT 8-C — 24T8 TO 24T10, 24T8A TO 24T10A, 24T8B TO 24T10B



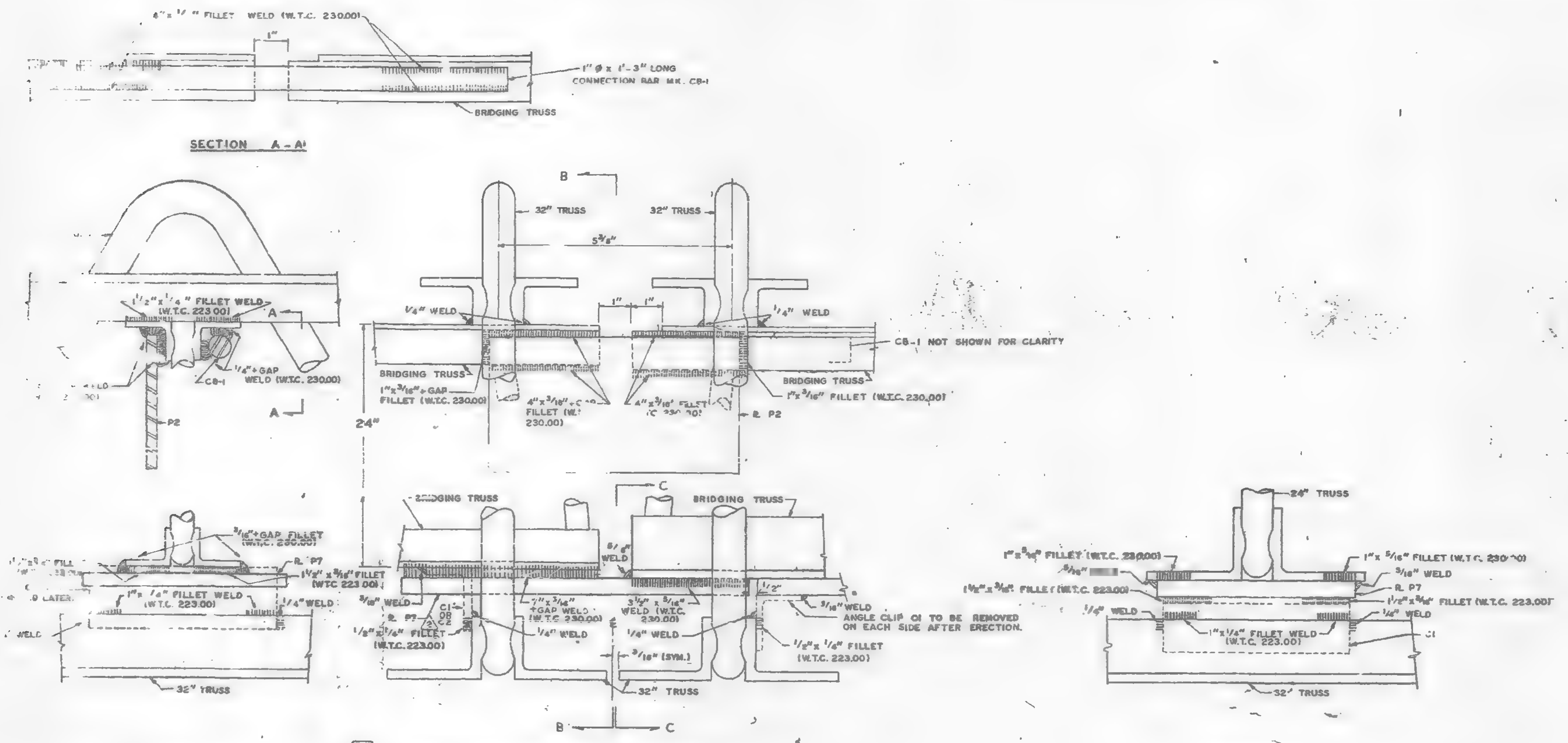
SECTION G1 - G1

NO.	DATE	REVISION	BY
2	6-24-68	AS NOTED	L.W.H.
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 8C, 10-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A. — DATE
APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR — DATE
DESIGN DRAWING NO. — PLATE
DRAWN BY: [illegible] — DATE: MAY 14, 1968
CHECKED BY: T.M. CHURA — DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO.: W.T.C. 221
SHEET NO.: CD 202



9-C PANEL JOINT BRIDGING TRUSS CONNECTION

FOR NOTES SEE SHEET CD 201.

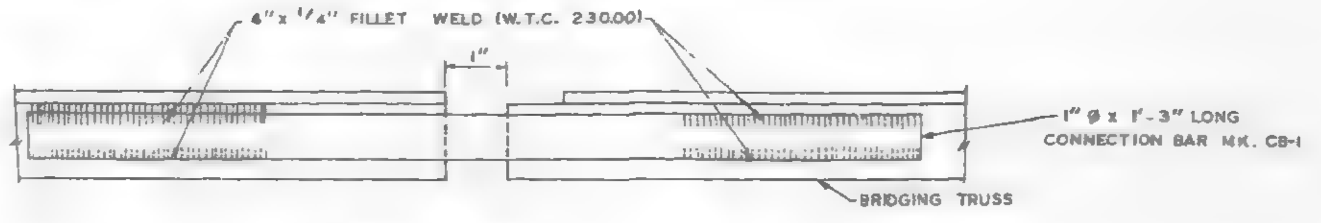
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL DC

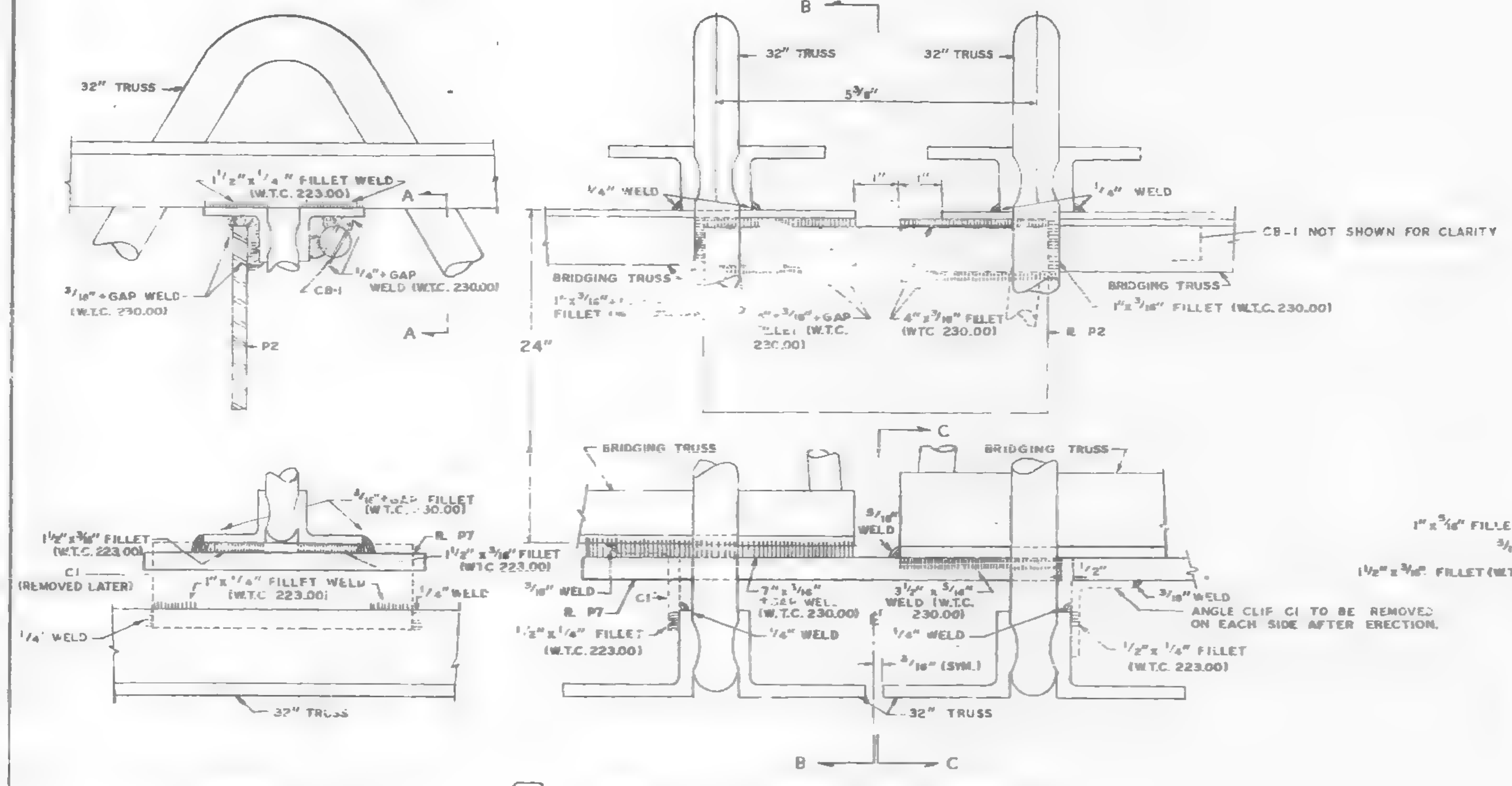
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO.
PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE 2/10/69
DRAWN BY
DATE AUG. 14, 1968
APPROVED FOR FABRICATION FOR FABRICATOR
LACLEDE STEEL CO.
DETAILED BY

NO.	DATE	REVISION	BY
2	1-8-68	AS NOTED	
1	9-3-68	GENERAL	G.D.

CD 03

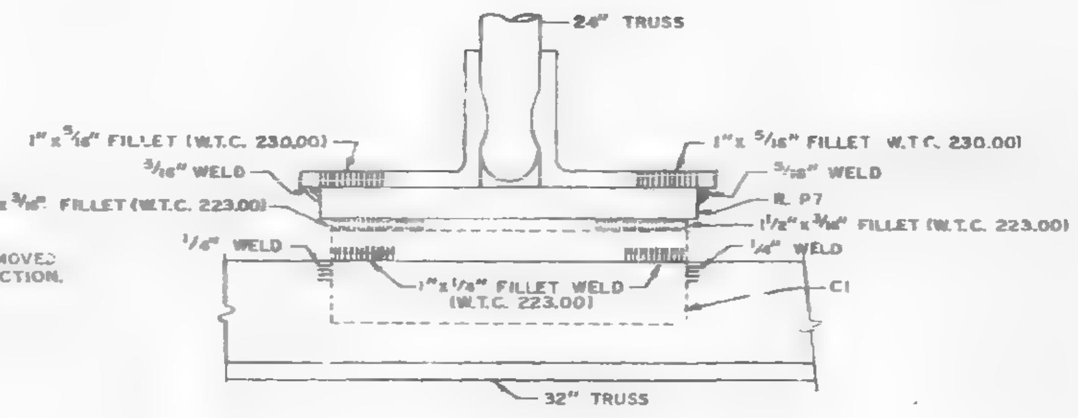


SECTION A-A



SECTION B-B

9-C PANEL JOINT BRIDGING TRUSS CONNECTION



SECTION C-C

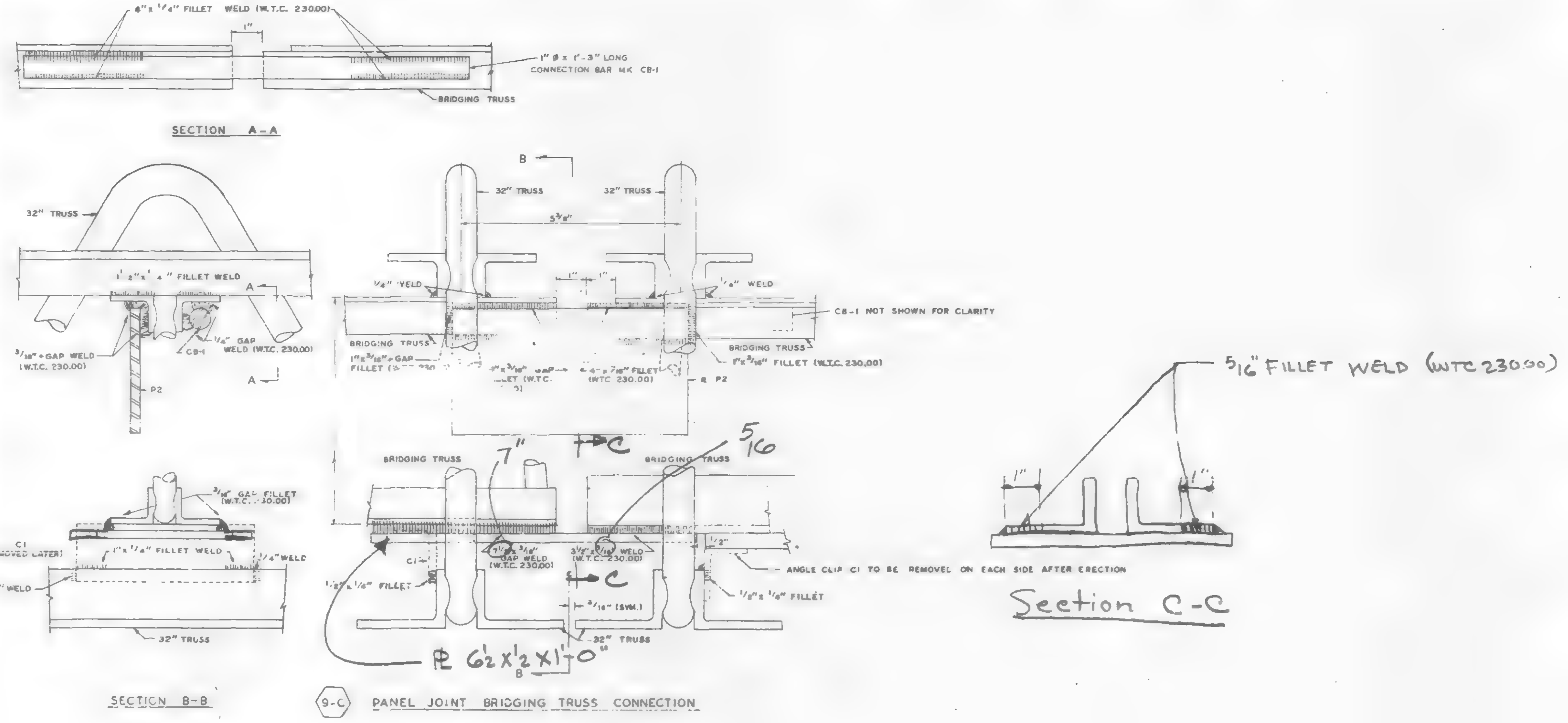
FOR NOTES SEE SHEET CD 201.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 9C

FABRICATION BY LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO	PLATE
APPROVED FOR FABRICATION BY [signature] FOR PONYA	DATE 9/19/68	DRAWN BY gdc DATE AUG. 14, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE AUG. 14, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT. NO. WTC 221	SHEET NO CD 203

NO.	DATE	REVISION	BY
△	9-3-68	GENERAL	G.D.C.



FOR NOTES SEE SHEET CD 201.

8/29/69 SK

CONNECTION DETAILS

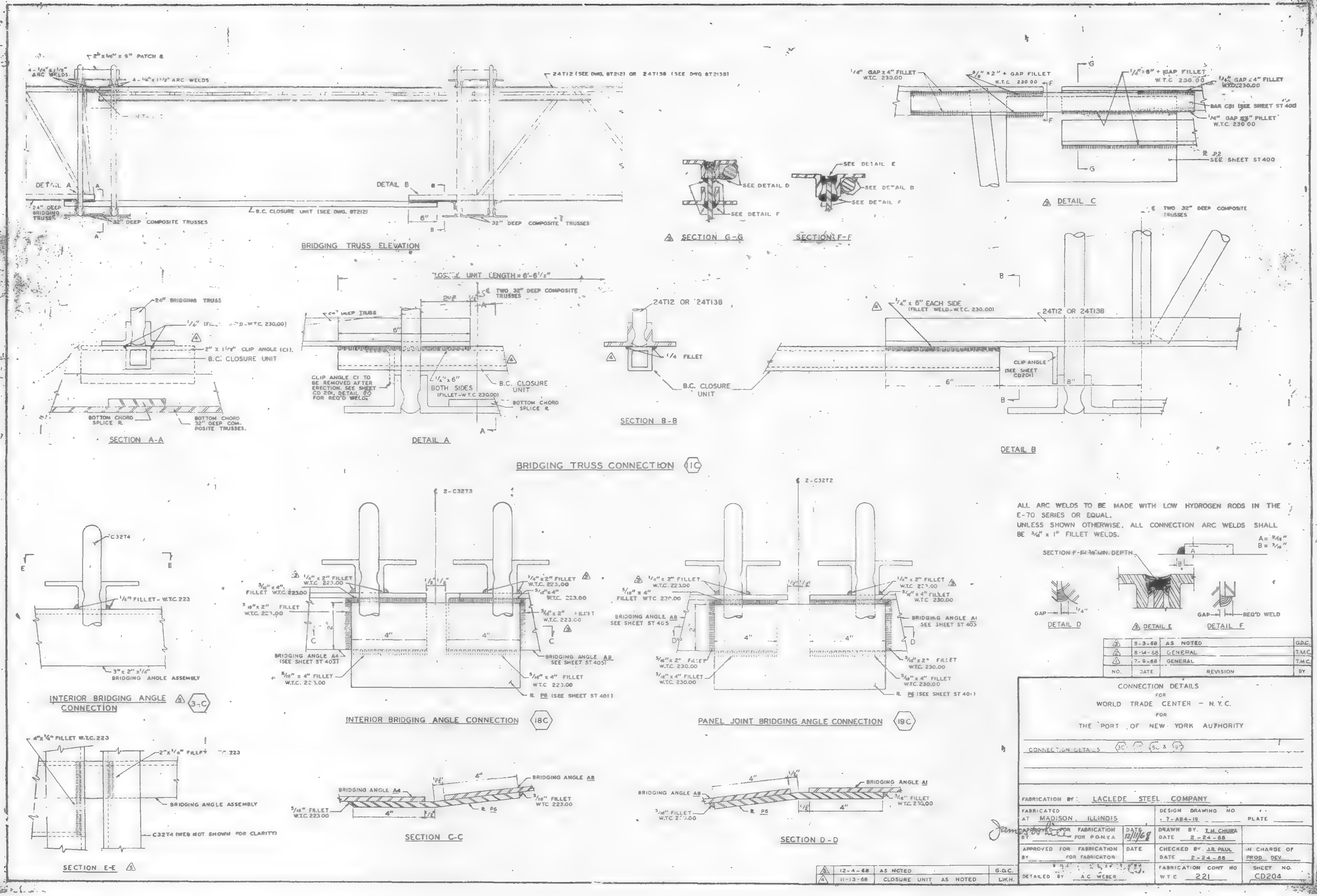
WORLD TRADE CENTER

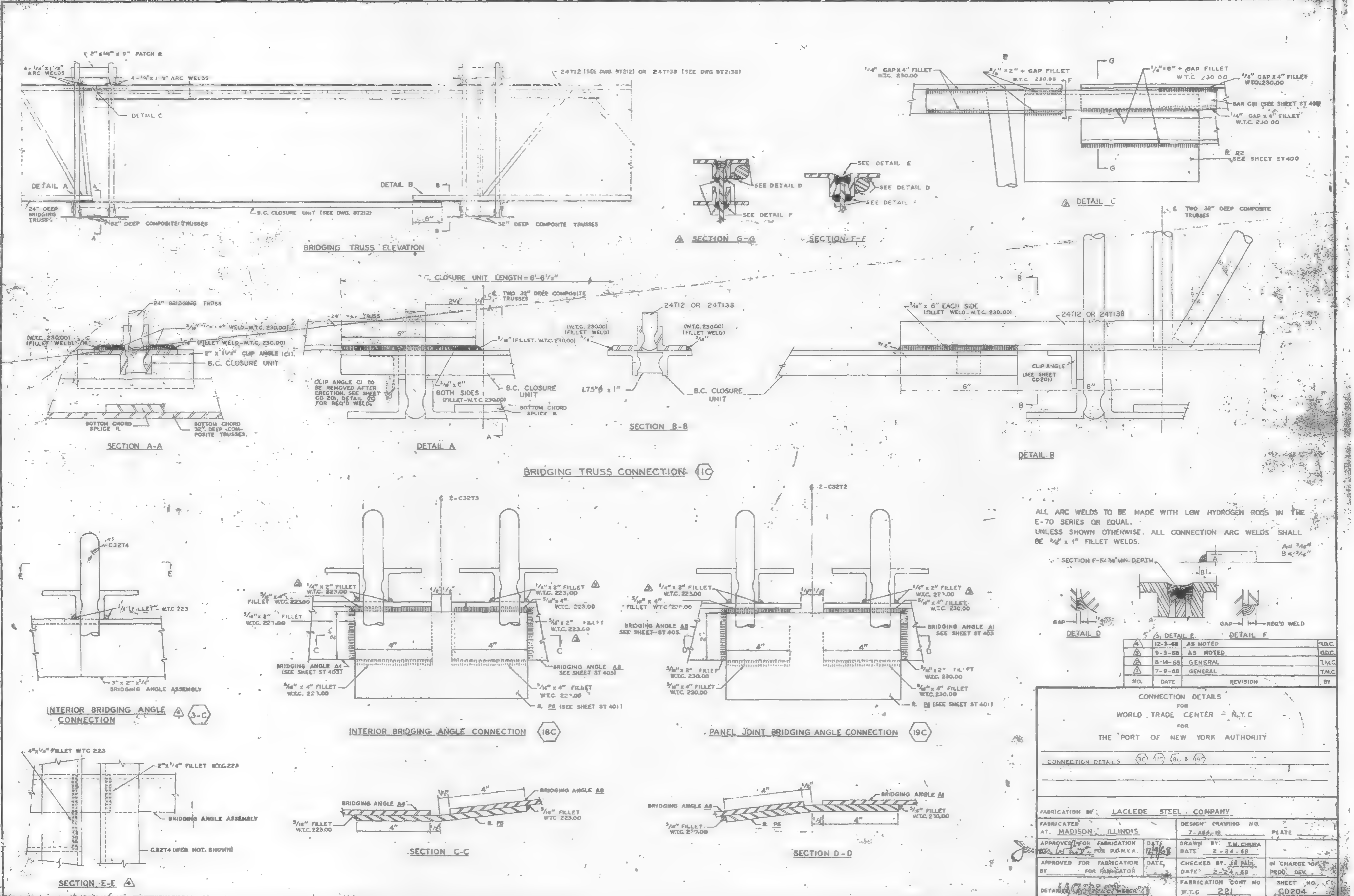
FOR

THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 9C

FABRICATION BY LACLEDE STEEL COMPANY	
FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO. PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE	DRAWN BY DATE AUG. 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE	CHECKED BY T.M.CHURA DATE AUG. 14, 1968 / IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER	FABRICATION CONT. NO. WTC 221 / SHEET NO. CD 203


BRIDGING TRUSS ELEVATION
24T12 (SEE DWG. BT212) OR 24T138 (SEE DWG BT2138)
B.C. CLOSURE UNIT (SEE DWG. BT212)
32" DEEP COMPOSITE TRUSSES
SECTION G-G
SECTION F-F
SEE DETAIL D
SEE DETAIL E
SEE DETAIL F
DETAIL C
SEE SHEET ST400
TWO 32" DEEP COMPOSITE TRUSSES
24" BRIDGING TRUSS
2" x 1 1/2" CLIP ANGLE (C1)
B.C. CLOSURE UNIT
BOTTOM CHORD SPLICE PL
BOTTOM CHORD 32" DEEP COMPOSITE TRUSSES.
SECTION A-A
CLIP ANGLE C1 TO BE REMOVED AFTER ERECTION. SEE SHEET CD 201, DETAIL 6C FOR REQ'D WELD.
BOTH SIDES
DETAIL A
24T12 OR 24T138
1/4 FILLET
SECTION B-B
1/4" x 6" EACH SIDE (FILLET WELD-W.T.C. 230.00)
CLIP ANGLE (SEE SHEET CD201)
DETAIL B
BRIDGING TRUSS CONNECTION 1C
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE, ALL CONNECTION ARC WELDS SHALL BE 3/16" x 1" FILLET WELDS.
DETAIL D
DETAIL E
DETAIL F
REQ'D WELD
C32T4
3" x 2" x 1/4" BRIDGING ANGLE ASSEMBLY
INTERIOR BRIDGING ANGLE CONNECTION 3-C
2-C32T3
BRIDGING ANGLE A4 (SEE SHEET ST 403)
BRIDGING ANGLE A8 SEE SHEET ST 405
PL P6 (SEE SHEET ST 401)
INTERIOR BRIDGING ANGLE CONNECTION 18C
2-C32T2
BRIDGING ANGLE A8 SEE SHEET ST 405
BRIDGING ANGLE A1 SEE SHEET ST 403
PANEL JOINT BRIDGING ANGLE CONNECTION 19C
BRIDGING ANGLE ASSEMBLY
C32T4 (WEB NOT SHOWN FOR CLARITY)
SECTION E-E
SECTION C-C
SECTION D-D
3 | 9-3-68 | AS NOTED | G.D.C.
2 | 8-14-68 | GENERAL | T.M.C.
1 | 7-9-68 | GENERAL | T.M.C.
NO. | DATE | REVISION | BY
5 | 12-4-68 | AS NOTED | G.D.C.
4 | 11-13-68 | CLOSURE UNIT AS NOTED | L.W.H.
CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A54-19
APPROVED FOR FABRICATION FOR P.O.N.Y.A.
DRAWN BY T.M. CHURA DATE 2-24-68
CHECKED BY J.R. PAUL DATE 2-24-68
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO W.T.C. 221
SHEET NO. CD204



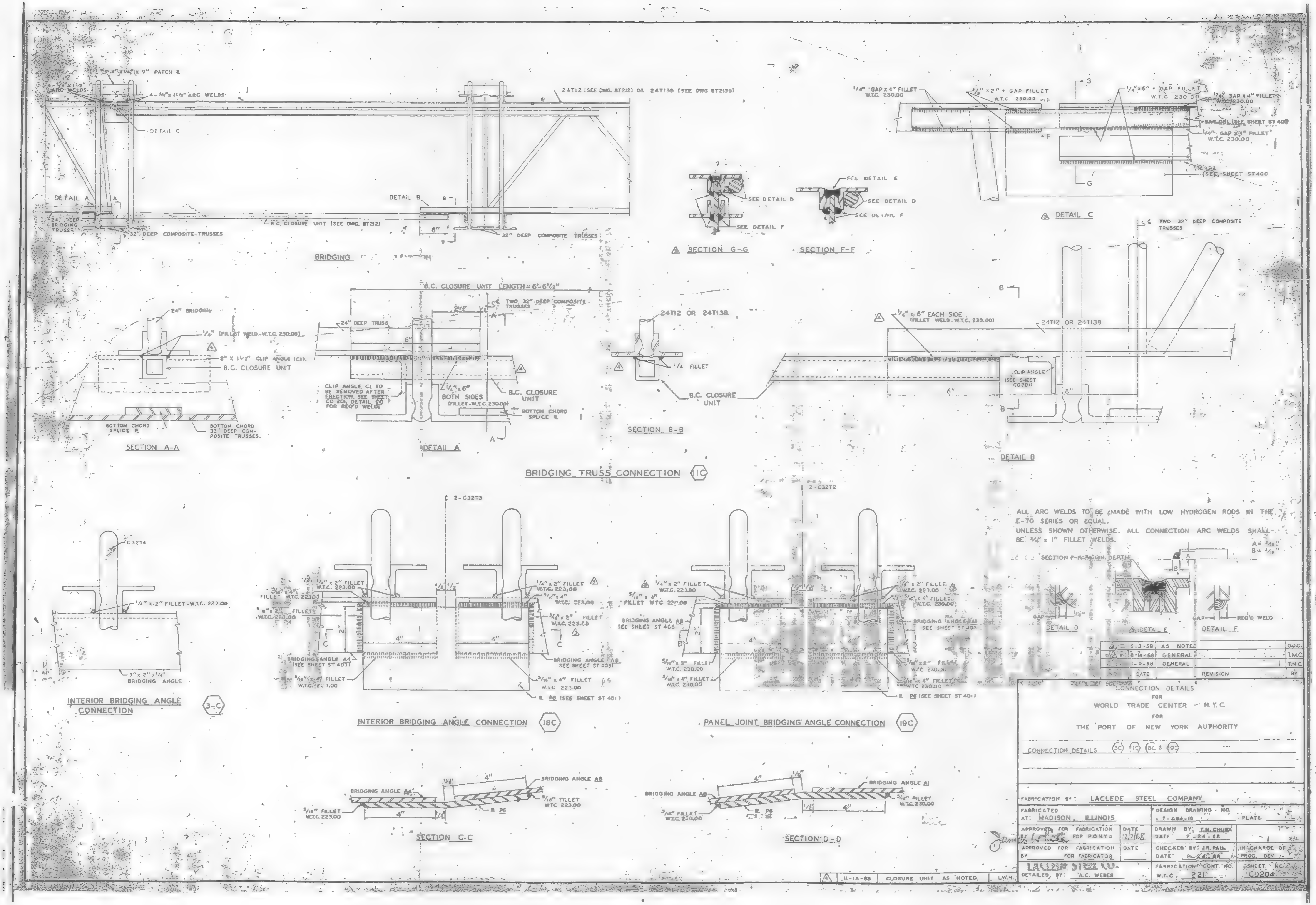
NO.	DATE	REVISION	BY
4	12-3-68	AS NOTED	G.D.C.
3	9-3-68	AS NOTED	G.D.C.
2	8-14-68	GENERAL	T.M.C.
1	7-9-68	GENERAL	T.M.C.

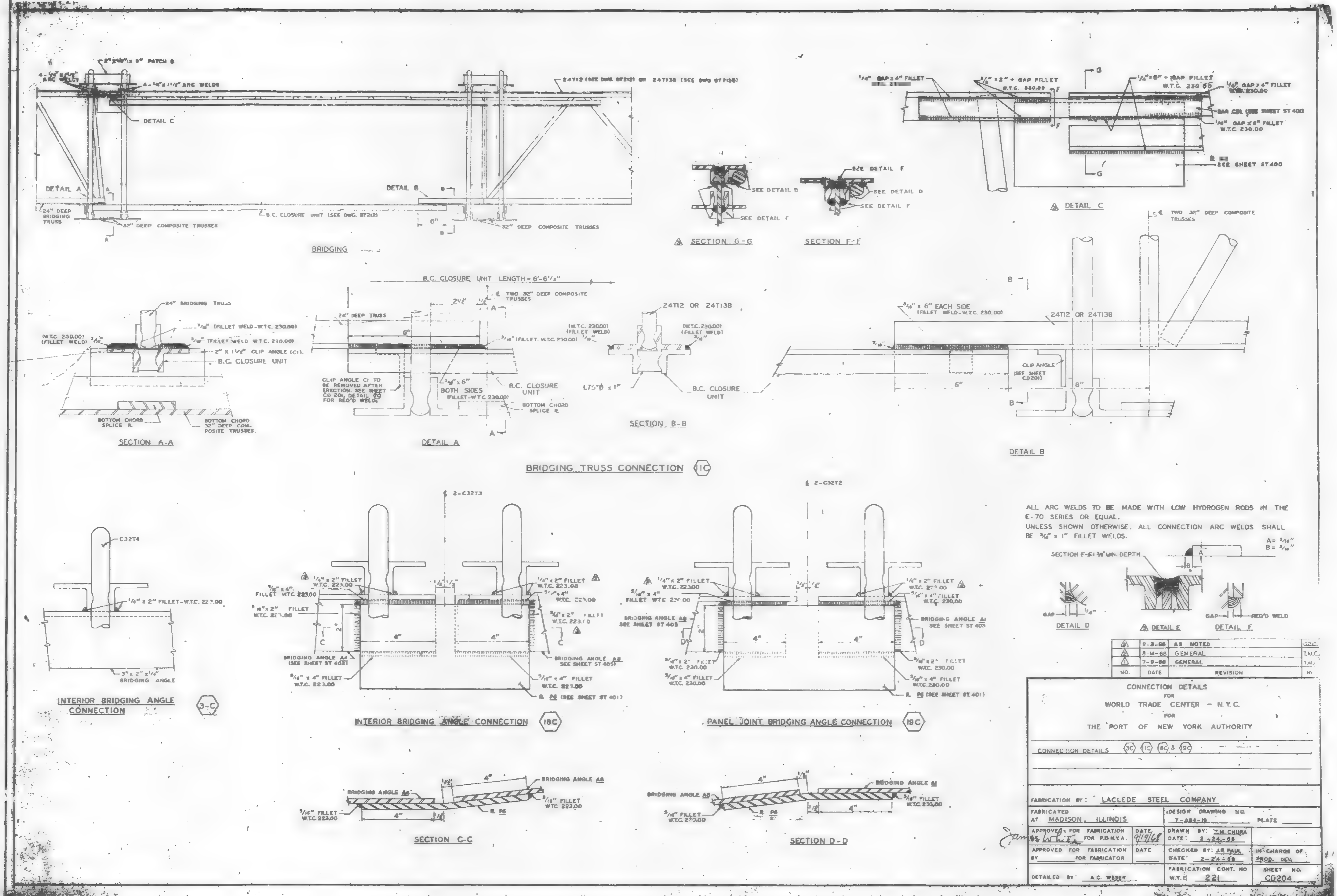
CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS 3C 11C 18C & 19C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT. MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-19	PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A.	DATE 12/9/68	DRAWN BY: T.M. CHURA DATE 2-24-68	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY. J.R. PAUL DATE 2-24-68	IN CHARGE OF PROD. DEV.
DETAILED BY		FABRICATION CONT. NO W.T.C 221	SHEET NO. CD204


BRIDGING
DETAIL A
DETAIL B
DETAIL C
24T12 (SEE DWG. BT212) OR 24T138 (SEE DWG BT2138)
B.C. CLOSURE UNIT (SEE DWG. BT212)
32" DEEP COMPOSITE TRUSSES
24" DEEP BRIDGING TRUSS
SECTION G-G
SECTION F-F
SEE DETAIL D
SEE DETAIL E
SEE DETAIL F
1/4" GAP x 4" FILLET W.T.C. 230.00
1/4" x 6" + GAP FILLET W.T.C. 230.00
TWO 32" DEEP COMPOSITE TRUSSES
B.C. CLOSURE UNIT LENGTH = 6'-6 1/2"
24" BRIDGING
2" x 1 1/2" CLIP ANGLE (C1)
B.C. CLOSURE UNIT
BOTTOM CHORD SPLICE R
SECTION A-A
24" DEEP TRUSS
CLIP ANGLE C1 TO BE REMOVED AFTER ERECTION. SEE SHEET CD 201, DETAIL 0C FOR REQ'D WELDS
1/4" x 6" BOTH SIDES (FILLET-W.T.C. 230.00)
BOTTOM CHORD SPLICE R
24T12 OR 24T138
1/4 FILLET
SECTION B-B
1/4" x 6" EACH SIDE (FILLET WELD-W.T.C. 230.00)
CLIP ANGLE (SEE SHEET CD201)
BRIDGING TRUSS CONNECTION (1C)
2-C32T3
2-C32T2
C32T4
1/4" x 2" FILLET-W.T.C. 223.00
3" x 2" x 1/4" BRIDGING ANGLE
INTERIOR BRIDGING ANGLE CONNECTION (3-C)
BRIDGING ANGLE A4 (SEE SHEET ST 403)
BRIDGING ANGLE A8 SEE SHEET ST 405
R P6 (SEE SHEET ST 401)
INTERIOR BRIDGING ANGLE CONNECTION (18C)
PANEL JOINT BRIDGING ANGLE CONNECTION (19C)
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE, ALL CONNECTION ARC WELDS SHALL BE 1/4" x 1" FILLET WELDS.
DETAIL D
DETAIL E
DETAIL F
GAP
REQ'D WELD
SECTION C-C
SECTION D-D
BRIDGING ANGLE A1
3/16" FILLET W.T.C. 223.00
3/16" FILLET W.T.C. 230.00
3 | 9-3-68 | AS NOTED | G.D.C.
2 | 8-14-68 | GENERAL | T.M.C.
1 | 7-9-68 | GENERAL | T.M.C.
NO. | DATE | REVISION | BY
CONNECTION DETAILS
FOR
WORLD TRADE CENTER — N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
CONNECTION DETAILS (3C) (1C) (18C) & (19C)
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A84-19
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A
DATE 12/2/68
DRAWN BY: T.M. CHURA
DATE 2-24-68
APPROVED FOR FABRICATION BY FOR FABRICATOR
DATE
CHECKED BY: J.R. PAUL
DATE 2-24-68
IN CHARGE OF PROD. DEV
LACLEDE STEEL CO.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD204
11-13-68 | CLOSURE UNIT AS NOTED | L.W.H.



NO.	DATE	REVISION	BY
3	9-3-68	AS NOTED	G.D.C.
2	8-14-68	GENERAL	T.M.C.
1	7-9-68	GENERAL	T.M.

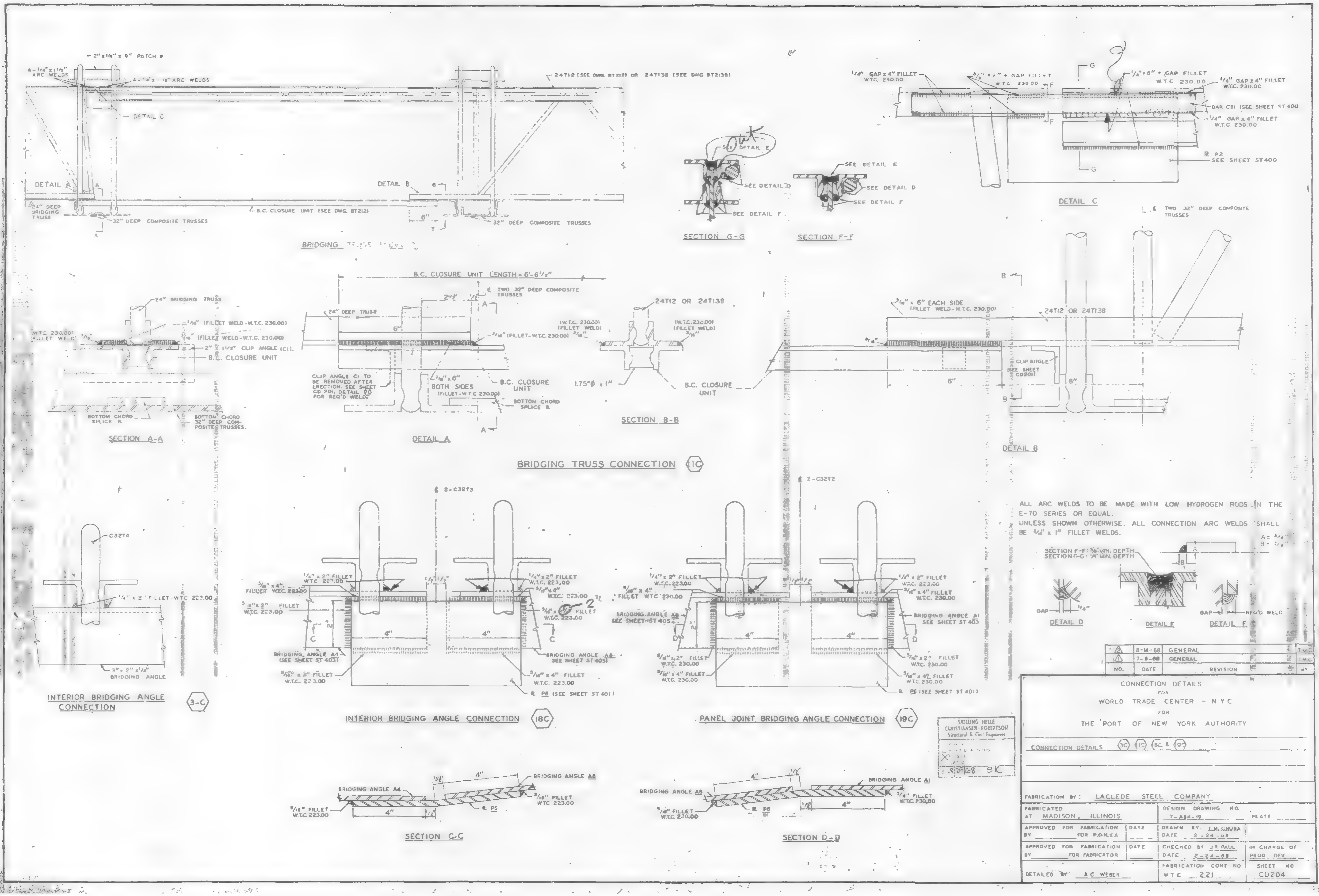
CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

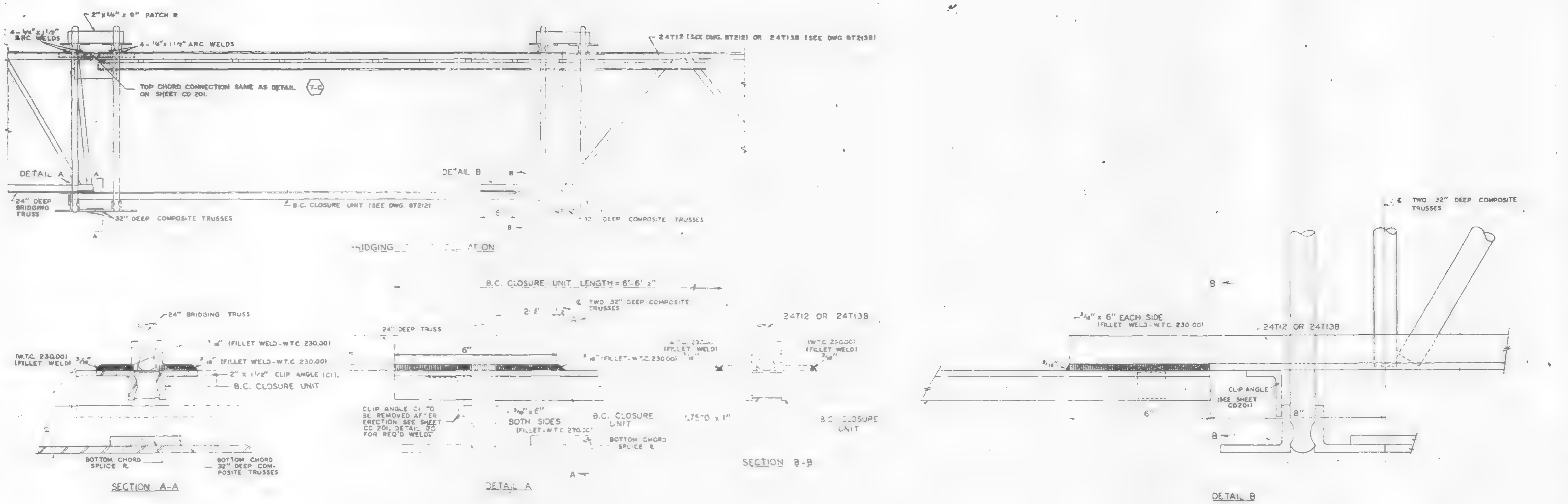
CONNECTION DETAILS (3C) (1C) (18C) & (19C)

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A84-19 PLATE

APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. DATE 9/19/68
DRAWN BY: T.M. CHURA DATE: 2-24-68
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY: J.R. PAUL DATE: 2-24-68
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD204


BRIDGING TRUSS CONNECTION 1C
DETAIL A
DETAIL B
DETAIL C
SECTION A-A
SECTION B-B
SECTION G-G
SECTION F-F
B.C. CLOSURE UNIT LENGTH = 6'-6 1/2"
32" DEEP COMPOSITE TRUSSES
24" DEEP BRIDGING TRUSS
B.C. CLOSURE UNIT (SEE DWG. BT2121)
24T12 (SEE DWG. BT2121) OR 24T138 (SEE DWG BT2138)
24T12 OR 24T138
INTERIOR BRIDGING ANGLE CONNECTION 3-C
INTERIOR BRIDGING ANGLE CONNECTION 18C
PANEL JOINT BRIDGING ANGLE CONNECTION 19C
SECTION C-C
SECTION D-D
DETAIL D
DETAIL E
DETAIL F
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE, ALL CONNECTION ARC WELDS SHALL BE 3/16" x 1" FILLET WELDS.
SECTION F-F: 3/8" MIN. DEPTH
SECTION G-G: 1/4" MIN. DEPTH
8-14-68 GENERAL T.M.C.
7-9-68 GENERAL T.M.C.
NO. DATE REVISION BY
SKILLING HELLE CHRISTIANSEN ROBERTSON Structural & Civil Engineers
CONNECTION DETAILS FOR WORLD TRADE CENTER - N Y C FOR THE PORT OF NEW YORK AUTHORITY
CONNECTION DETAILS 3C 1C 18C & 19C
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A84-19
DRAWN BY T.M. CHURA DATE 2-24-68
CHECKED BY J.R. PAUL DATE 2-24-68
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO CD204



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE. ALL CONNECTION ARC WELDS SHALL BE 3/16" x 1" FILLET WELDS.

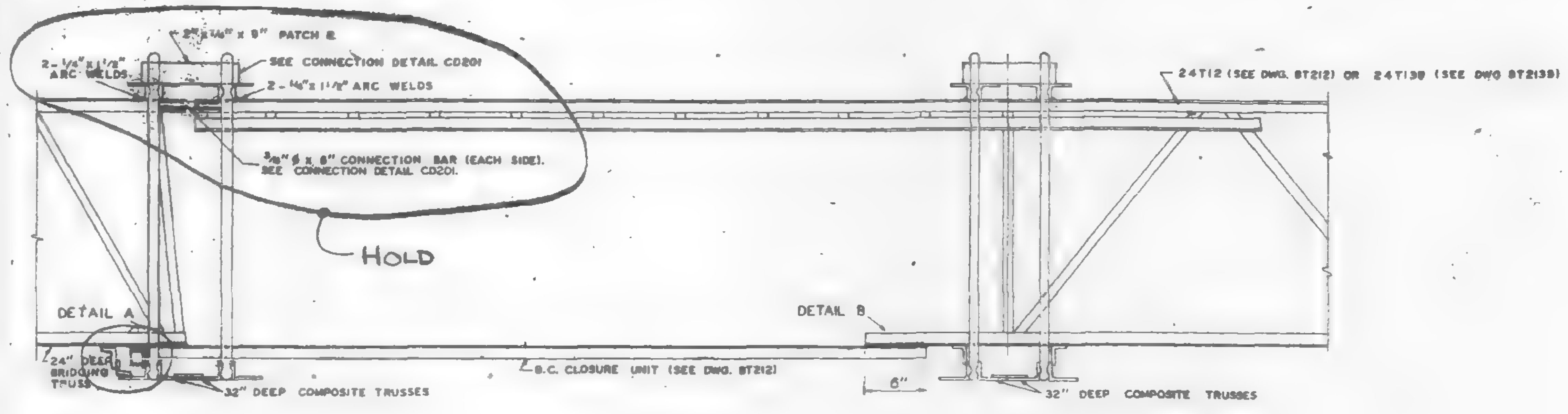
NO	DATE	REVISION	BY
1	7-9-68	GENERAL	T.M.C.

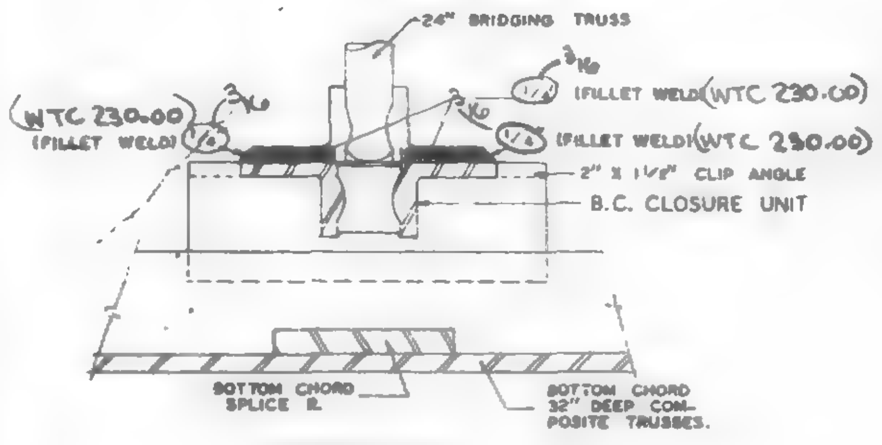
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS FOR 24T12 & 24T138 BRIDGING TRUSSES(L.C.)

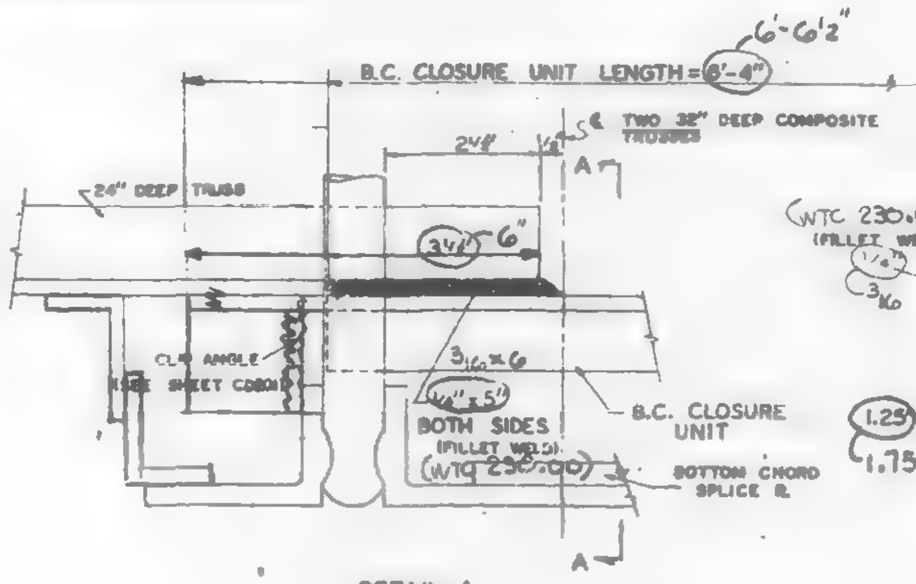
FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON ILLINOIS		DESIGN DRAWING NO. 7-AB4-19	PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A	DATE 7/12/68	DRAWN BY. T.M. CHURA DATE 2-24-68	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY. J.R. PAUL DATE 2-24-68	IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER		FABRICATION CONT NO. W T C 221	SHEET NO. CD204

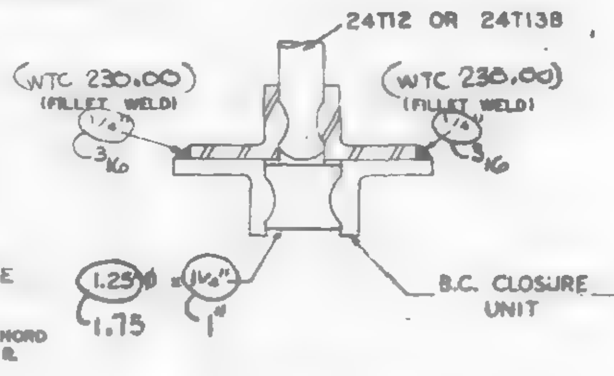




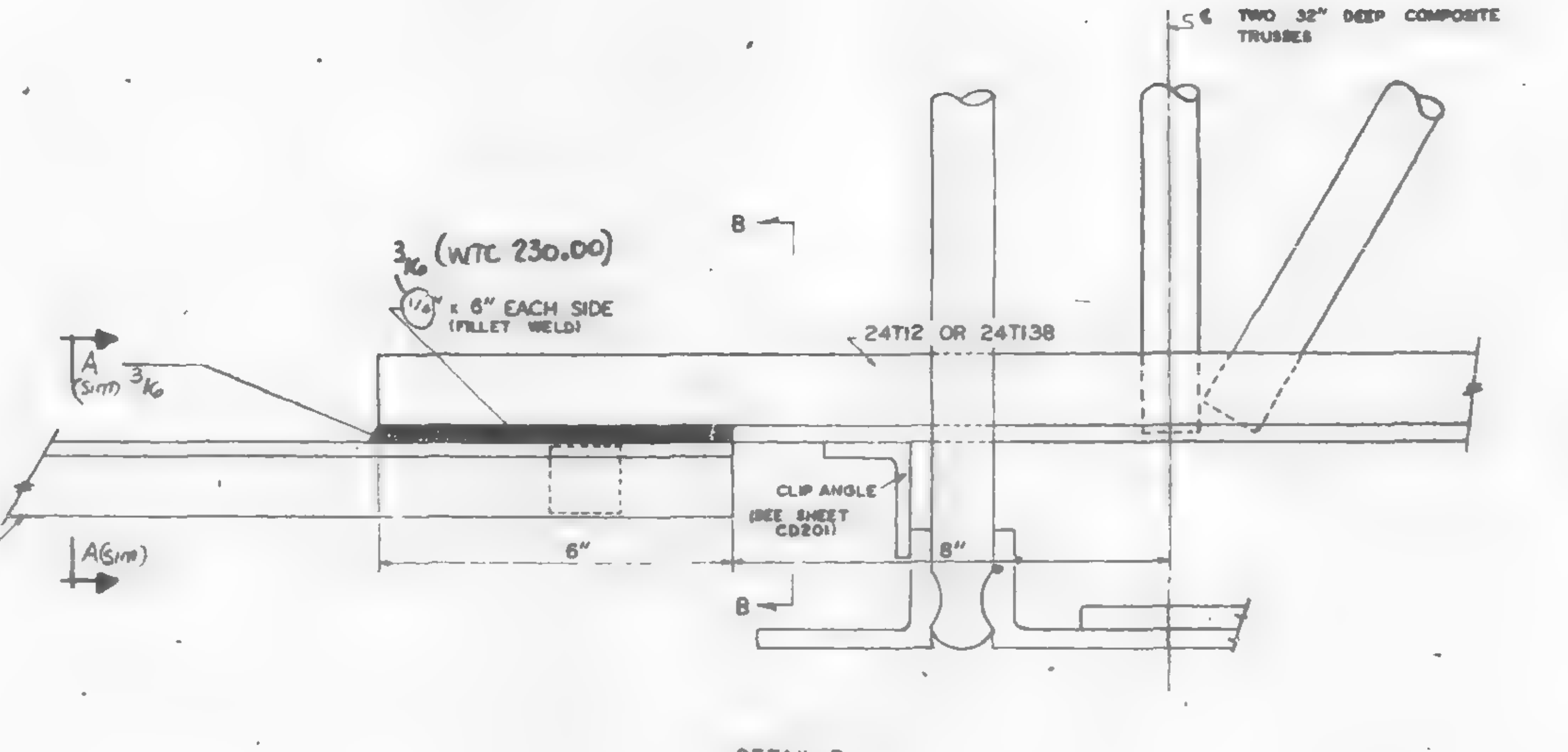
SECTION A-A



DETAIL A



SECTION B-B



DETAIL B

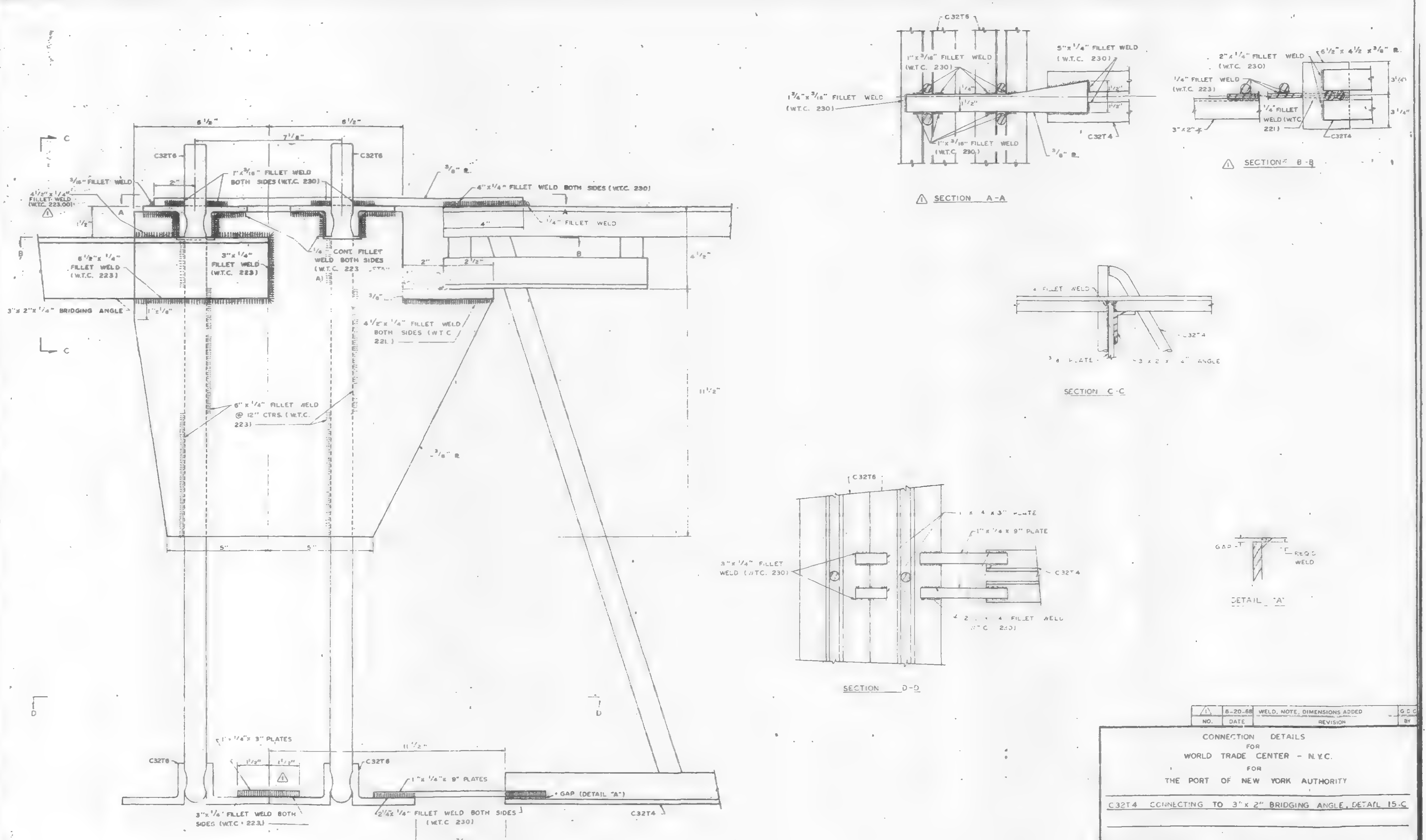
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE, ALL CONNECTION ARC WELDS SHALL BE 1/8" x 1" FILLET WELDS. (3/16)

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS FOR 24T12 & 24T138 BRIDGING TRUSSES

FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-18	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A.	DATE	DRAWN BY: T.M. CHUBA DATE: 2-24-68	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: J.R. PAUL DATE: 2-24-68	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD204

SKILLING HELLE CHRISTIANSEN ROBERTSON
4/24/68 SR



C32T4 TO 3" x 2" CONNECTION DETAIL (15-C)

REF. DWG.

7-AB4-12	5-8-68
7-AB4-13.2	5-9-68
7-AB1-8	5-10-68
7-AB1-12	5-10-68

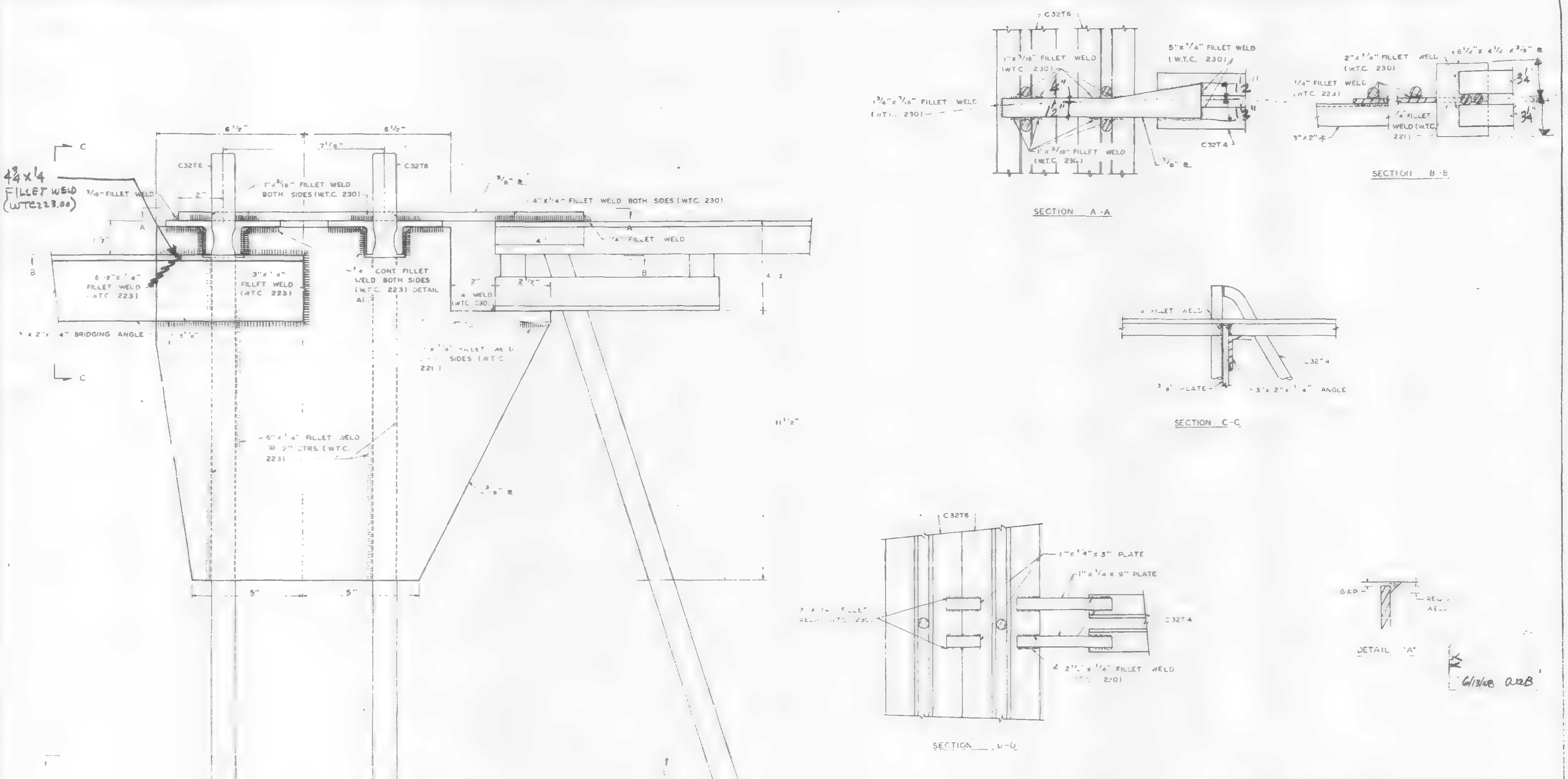
NOTE
1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATES TO BE ASTM A36 (1)

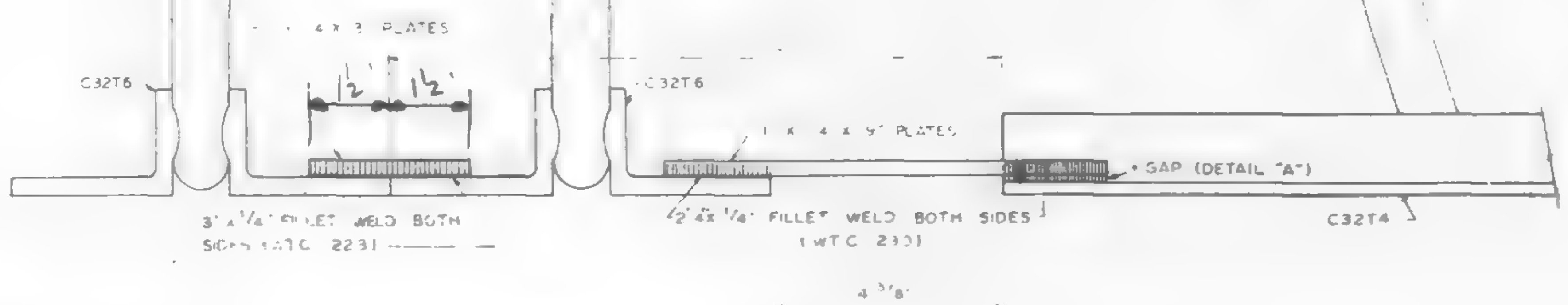
NO.	DATE	REVISION	BY
1	8-20-68	WELD, NOTE, DIMENSIONS ADDED	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T4 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 15-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY GW FOR P.O.N.Y.A. DATE 6/25/68
APPROVED FOR FABRICATION BY LACLEDE STEEL CO FOR FABRICATOR DATE
DETAILED BY: A.C. WEBER
DESIGN DRAWING NO. 7-AB4-121 5-17-68 PLATE
DRAWN BY: [illegible] DATE MAY 14, 1968
CHECKED BY: T.M. CHURA DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 205





REF. DWG.

7-AB4-12	5-17-68
22	5-17-68
8	4-68
7-AB4-12	4-68

C32T4 TO 3 x 2" CONNECTION DETAIL (15 C)

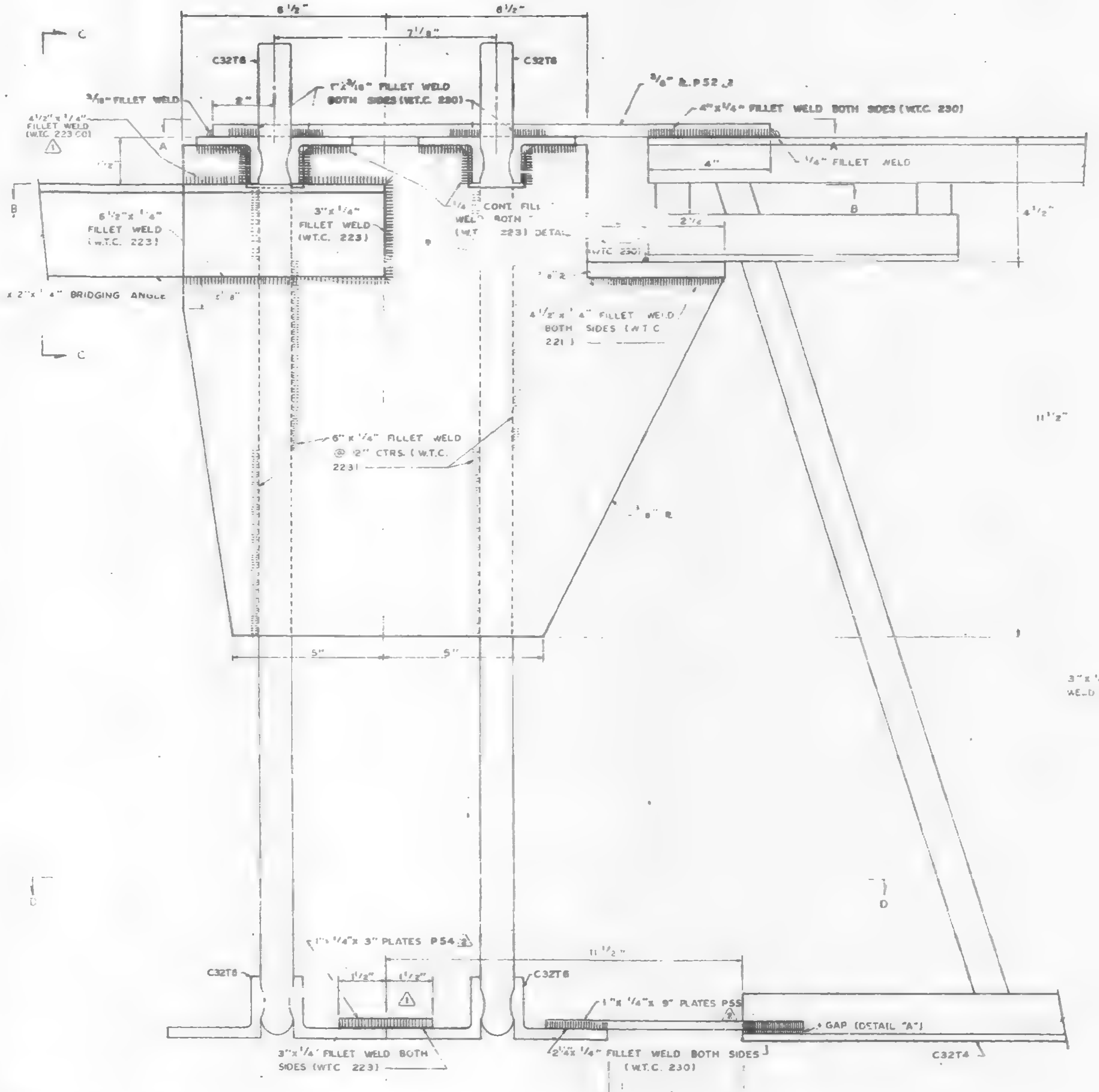
NOTE

1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
2. ALL PLATE TO BE ASTM A36.

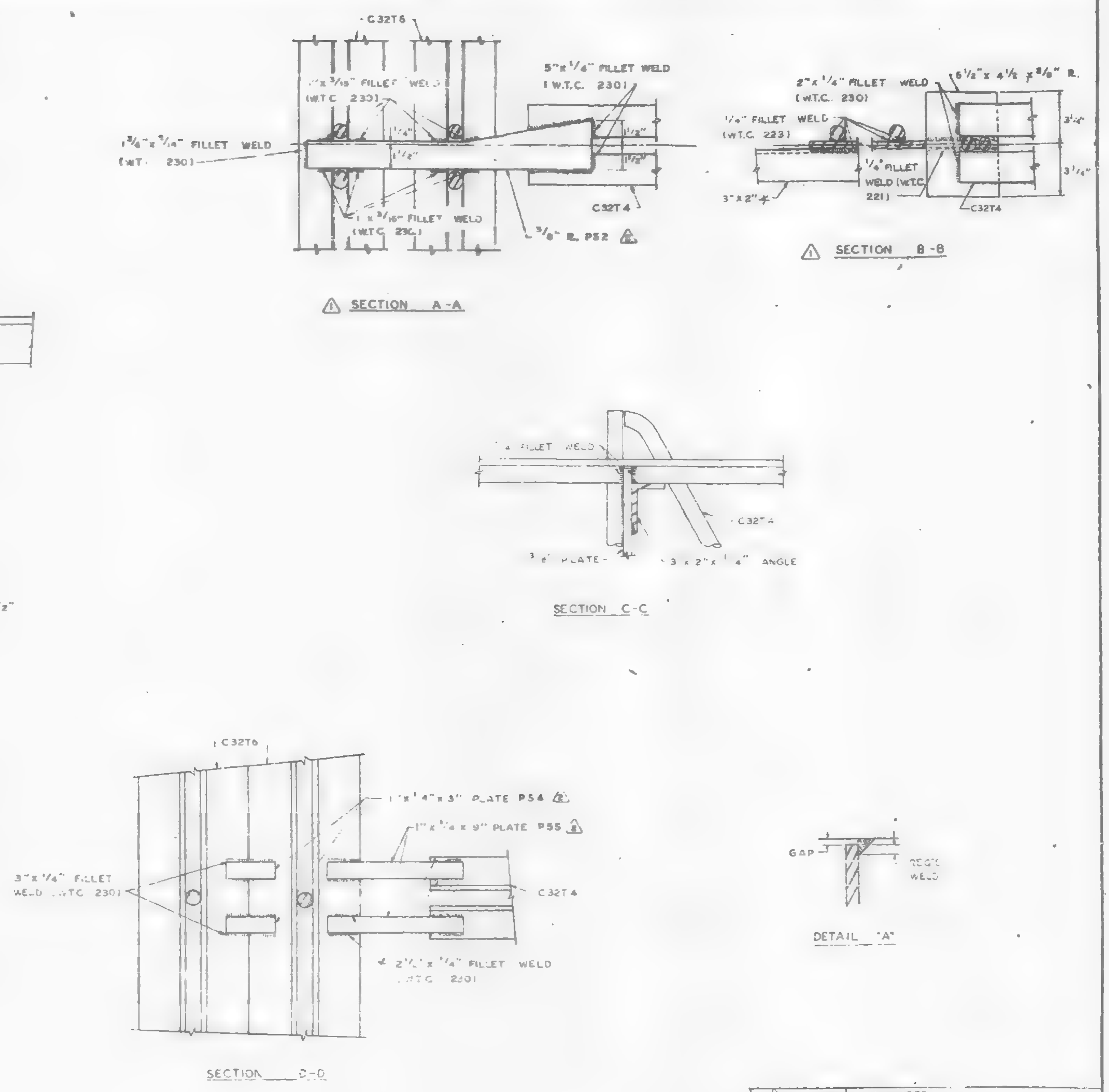
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY

C32T4 CONNECTING TO 3"x 2" BRIDGING ANGLE, DETAIL

FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB4-121 5-17-68	PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE	DRAWN BY ____ DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER		FABRICATION CONT NO W.T.C. 221	SHEET NO CD 205



C32T4 TO 3" x 2" CONNECTION DETAIL 15-C



REF. DRWG. (2)

7-A84-12 7-22-68
7-A84-13.2 10-15-68
7-A81-8 7-22-68
7-A81-12 7-22-68

NOTE
1 ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2 ALL PLATES TO BE ASTM A36 (1)

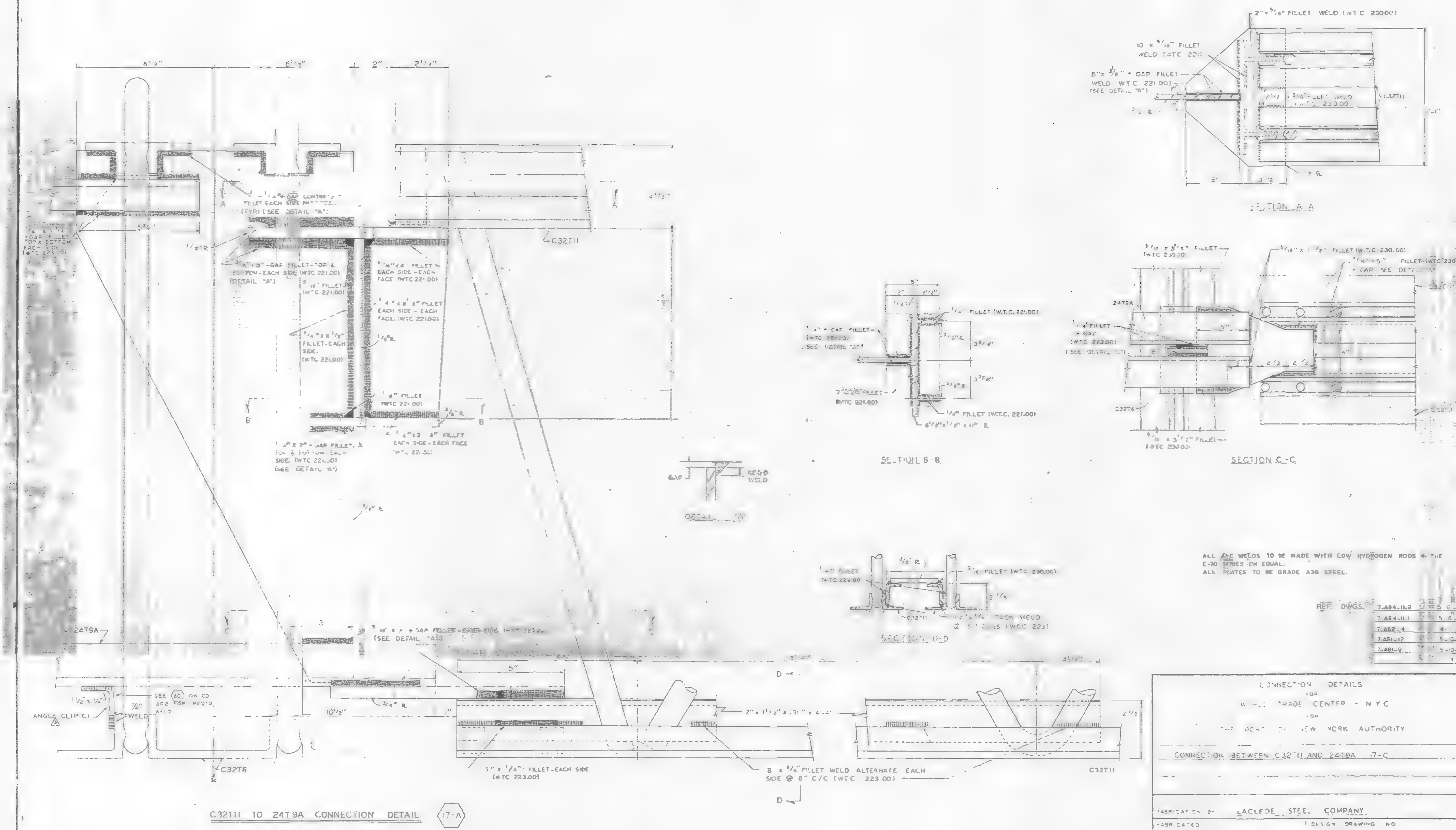
NO.	DATE	REVISION	BY
2	4-3-69	AS NOTED	R.J.P.
1	8-20-68	WELD, NOTE, DIMENSIONS ADDED	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T4 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 15-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-121 5-17-68 PLATE	
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 4/15/69	DRAWN BY: [illegible] DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 205



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

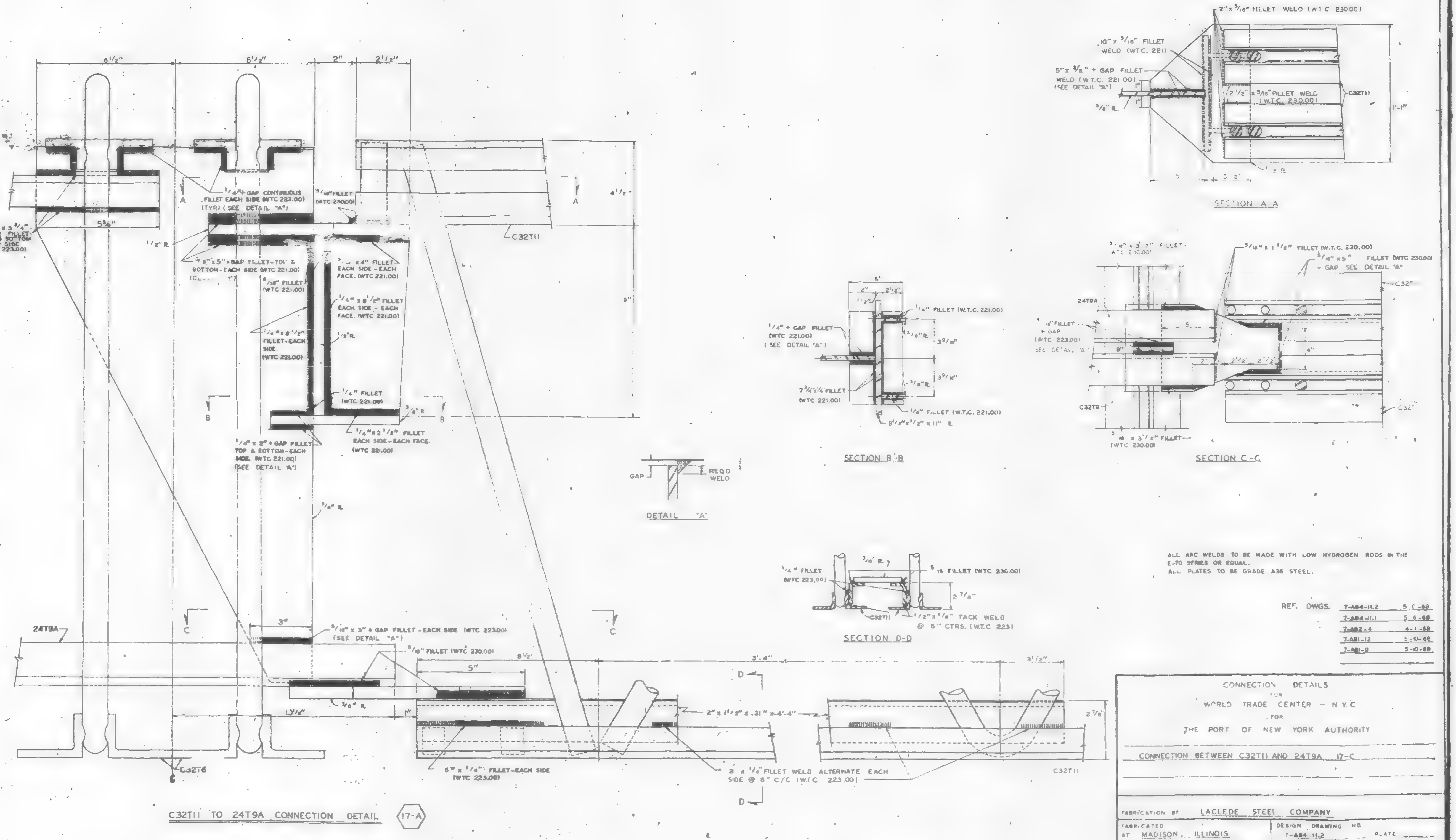
REF. DWGS.	
7-AB4-11.2	5-6-68
7-AB4-11.1	5-6-68
7-AB2-4	4-1-68
7-AB1-12	5-10-68
7-AB1-9	5-10-68

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T11 AND 24T9A 17-C

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB4-11.2
PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 7/12/68
DRAWN BY gdc DATE MAY 14, 1968
CHECKED BY T.M.CHURA DATE MAY 15, 1968
IN CHARGE OF PROD DEV.
CONTRACT NO 221
SHEET NO CD 206

No.	DATE	REVISION	BY
3	7-10-68	CLIP ANGLE C1	T.M.C.
2	6-21-68	GENERAL	T.M.C.
1	5-20-68	WELD DETAILS	L.W.H.



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

REF. DWGS.

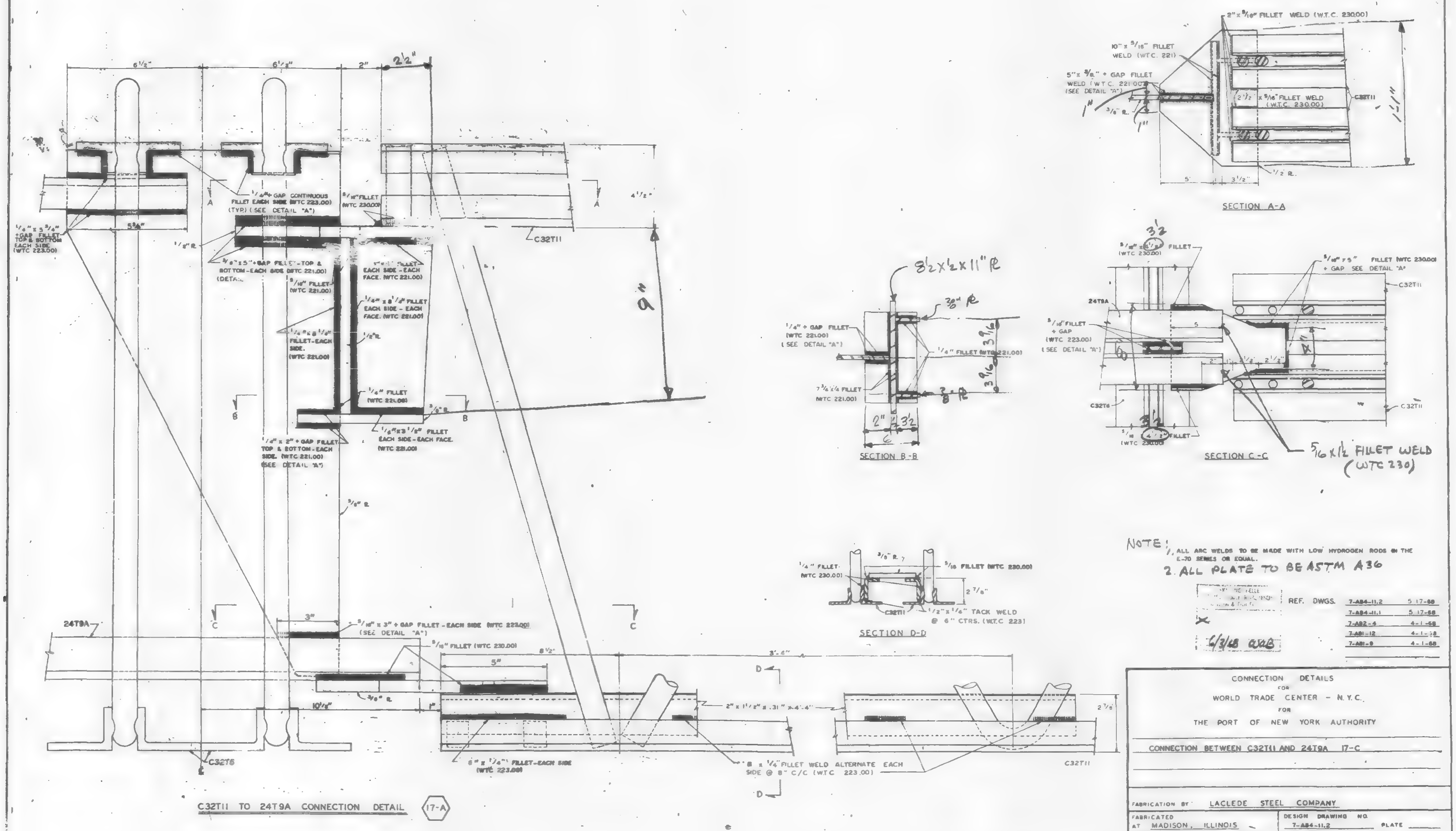
7-AB4-11.2	5-6-68
7-AB4-11.1	5-8-68
7-AB2-4	4-1-68
7-AB1-12	5-10-68
7-AB1-9	5-10-68

CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T11 AND 24T9A 17-C

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB4-11.2 PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 6/25/68
DRAWN BY gdc DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
LACLEDE STEEL CO.
CHECKED BY TMCHURA DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 206

NO	DATE	REVISION	BY
2	6-21-68	GENERAL	T.M.C.
1	5-20-68	WELD DETAILS	L.W.H.



NOTE: 1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATE TO BE ASTM A36

6/3/68 WAB

REF. DWGS.	
7-AB4-11.2	5-17-68
7-AB4-11.1	5-17-68
7-AB2-4	4-1-68
7-AB1-12	4-1-68
7-AB1-9	4-1-68

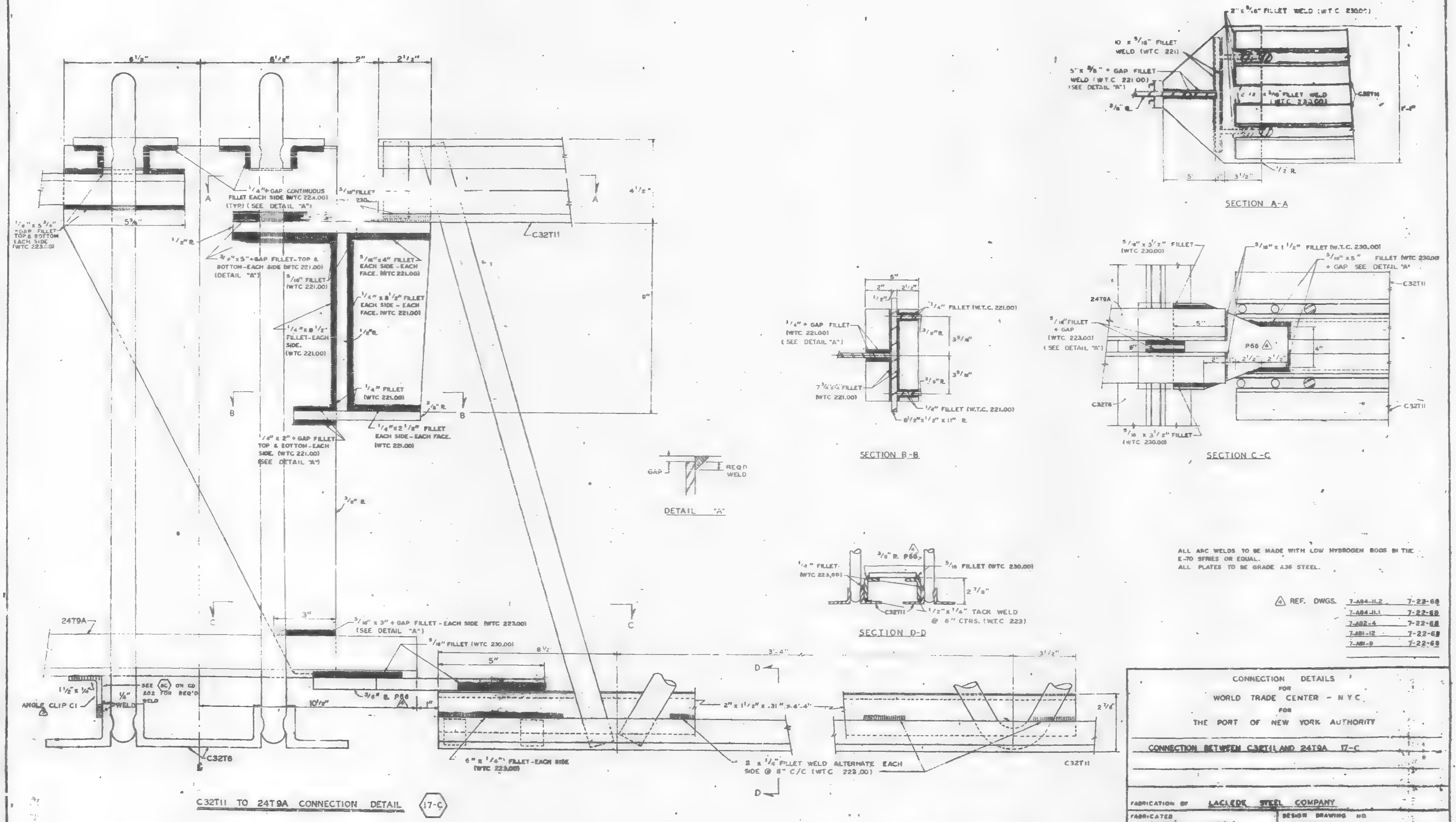
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T11 AND 24T9A 17-C

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-11.2	PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A	DATE	DRAWN BY: gdc DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE MAY 15, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A C WEBER		FABRICATION CONT. NO. WTC 221	SHEET NO. CD 206

NO	DATE	REVISION	BY
1	5-20-68	WELD DETAILS	L.W.H.



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

△4 REF. DWGS.

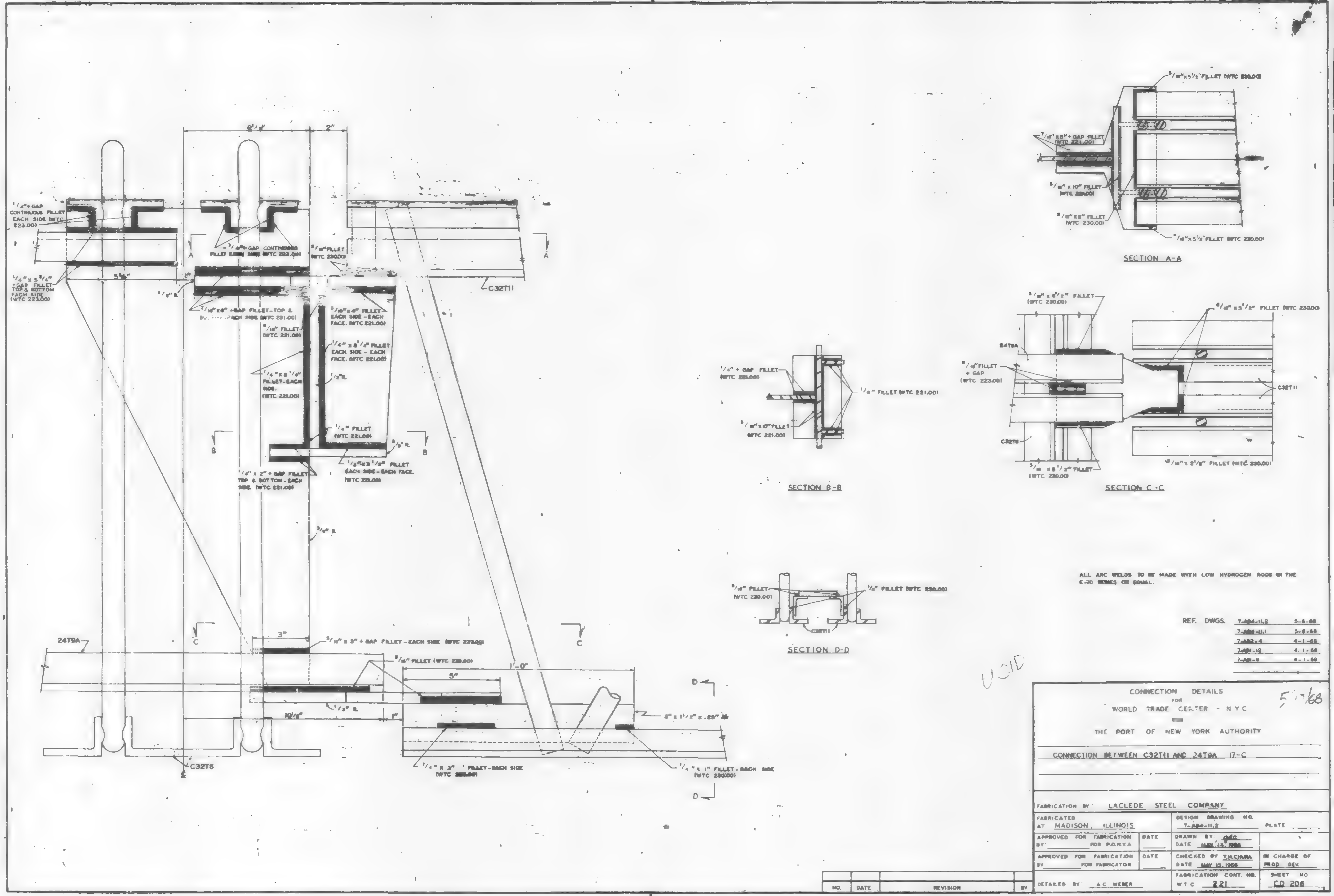
7-A94-11.2	7-22-68
7-A94-11.1	7-22-68
7-A92-4	7-22-68
7-A91-12	7-22-68
7-A91-9	7-22-68

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

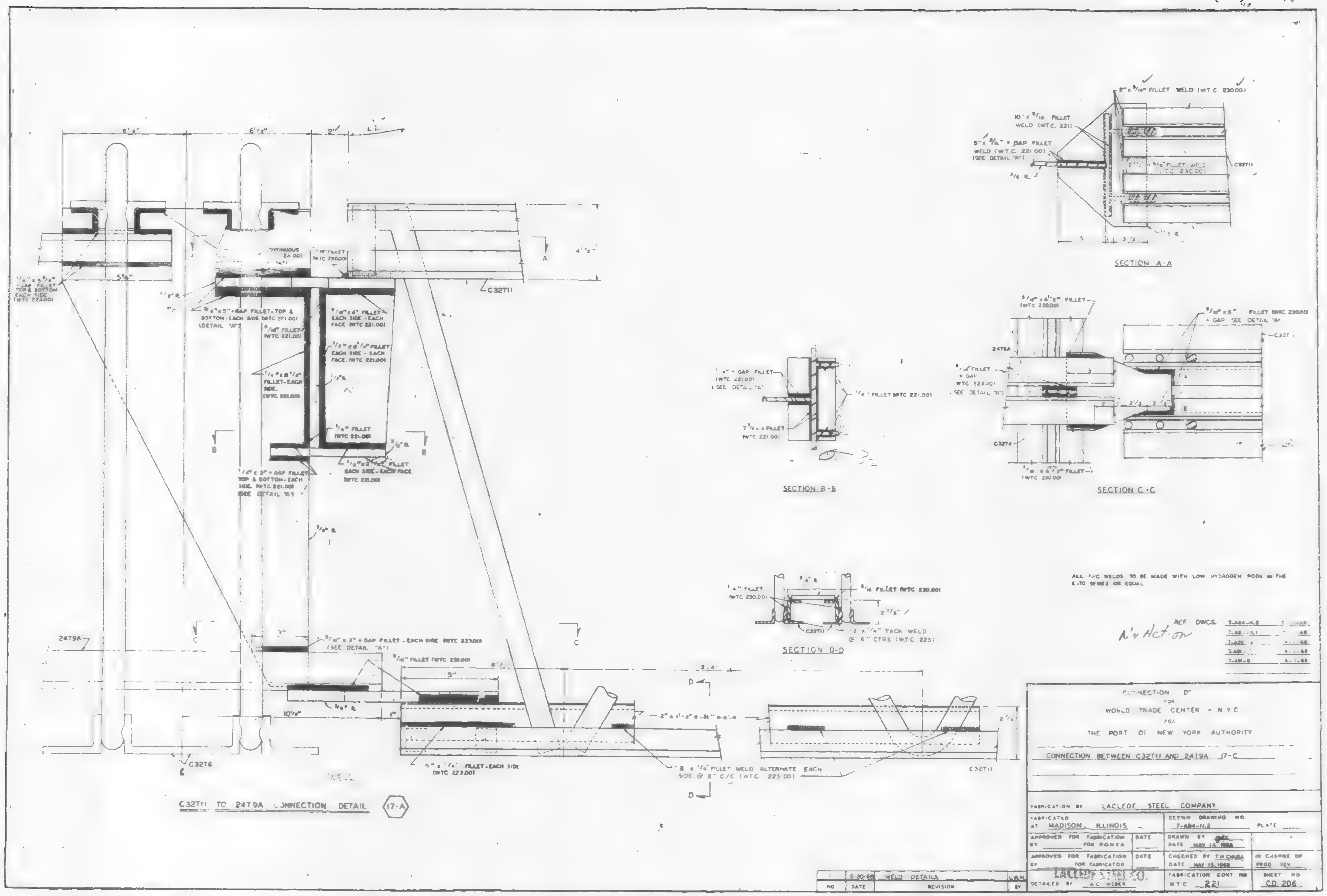
CONNECTION BETWEEN C32T11 AND 24T9A 17-C

FABRICATION OF LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A94-11.2 PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE 4/11/69
DRAWN BY ... DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.C... DATE MAY 15, 1968
IN CHARGE OF PROD. ...
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W T C 221
SHEET NO. CD 206

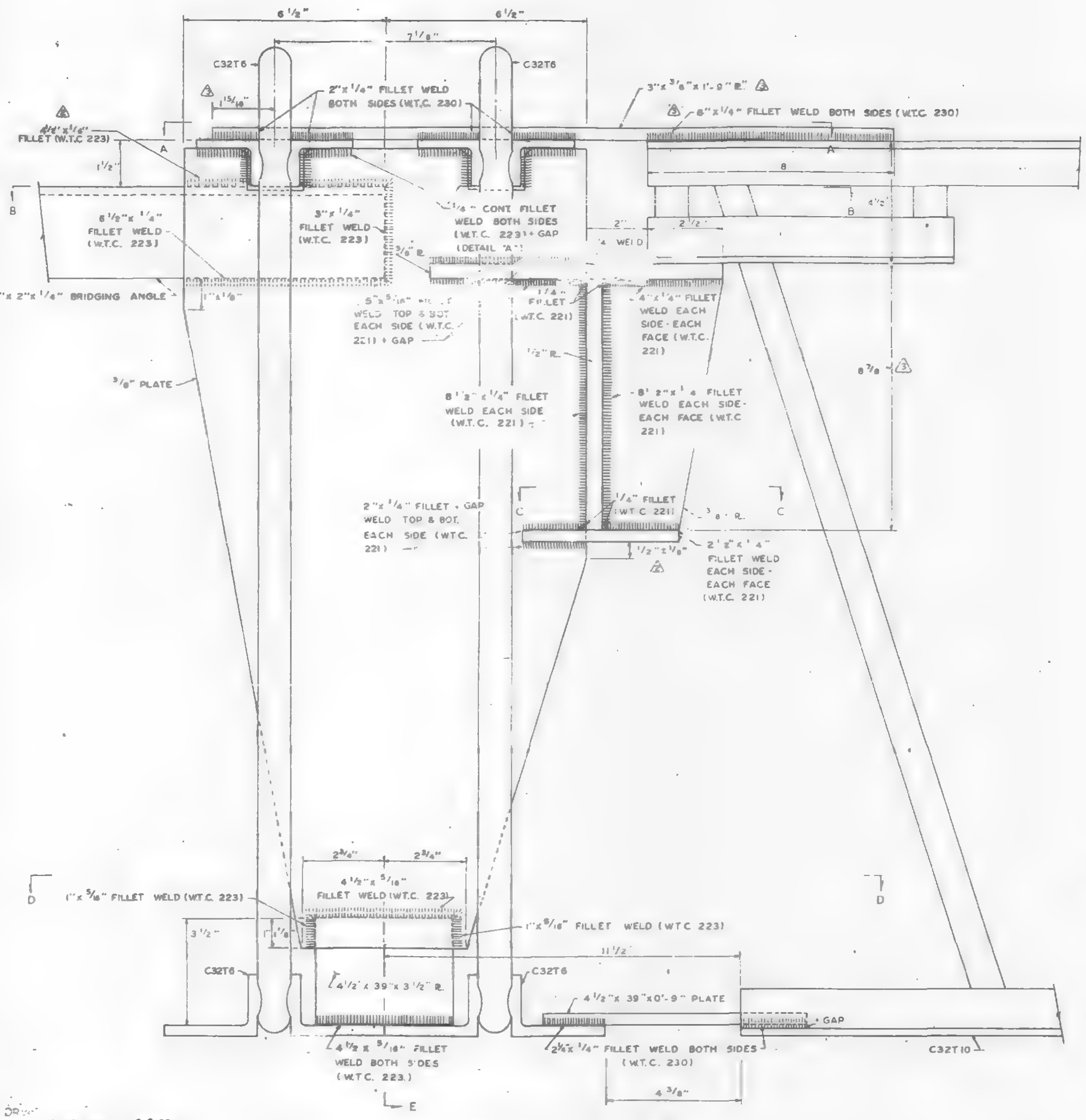
NO	DATE	REVISION	BY
4	4-3-69	AS NOTED	...
3	7-10-68	ANGLE CLIP C1	T.M.C.
2	8-21-68	GENERAL	T.M.C.
1	5-20-68	WELD DETAILS	L.W.H.



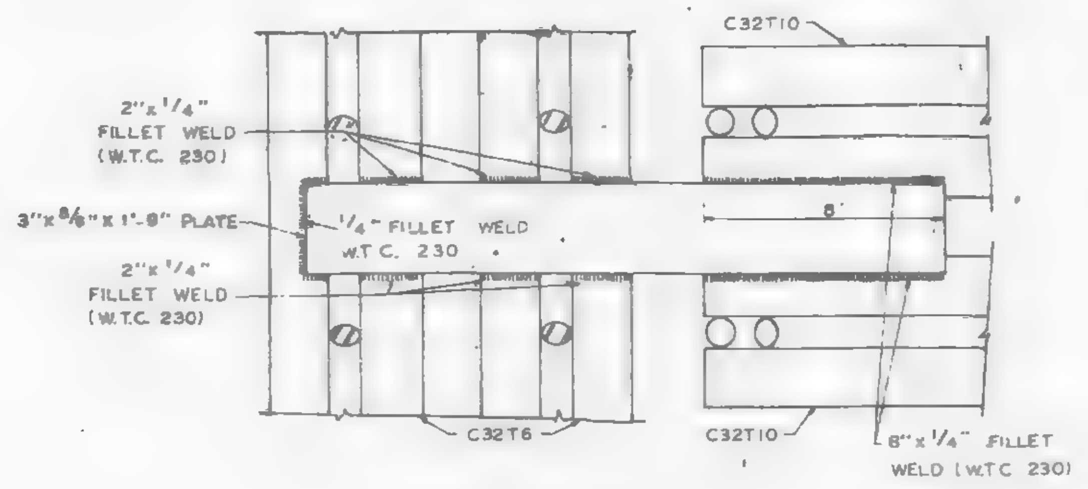
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
C32T11
C32T6
24T9A
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
REF. DWGS.
7-AB4-11.2 5-6-68
7-AB4-11.1 5-6-68
7-AB2-4 4-1-68
7-AB1-12 4-1-68
7-AB1-8 4-1-68
VOID
CONNECTION DETAILS FOR WORLD TRADE CENTER - N Y C
THE PORT OF NEW YORK AUTHORITY
5/17/68
CONNECTION BETWEEN C32T11 AND 24T9A 17-C
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB4-11.2
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A
DATE
DRAWN BY
DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
CHECKED BY T.M.CHURA
DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT. NO. W T C 221
SHEET NO. CD 206
DETAILED BY A C WEBER
NO. DATE REVISION BY



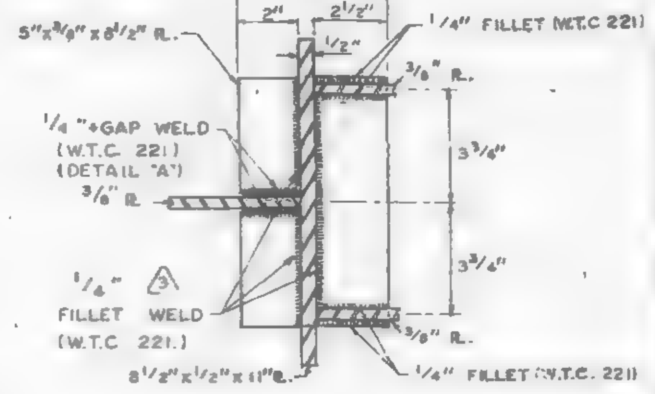
C32T11 TO 24T9A CONNECTION DETAIL 17-A
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
C32T11
C32T6
24T9A
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
REF. DWGS.
7-A84-11.2
7-ABI-D 4-1-68
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY
CONNECTION BETWEEN C32T11 AND 24T9A 17-C
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-A84-11.2
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A.
DATE
DRAWN BY
DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
CHECKED BY T.H. CHUBA
DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO CD 206
1 5-20-68 WELD DETAILS
NO DATE REVISION BY



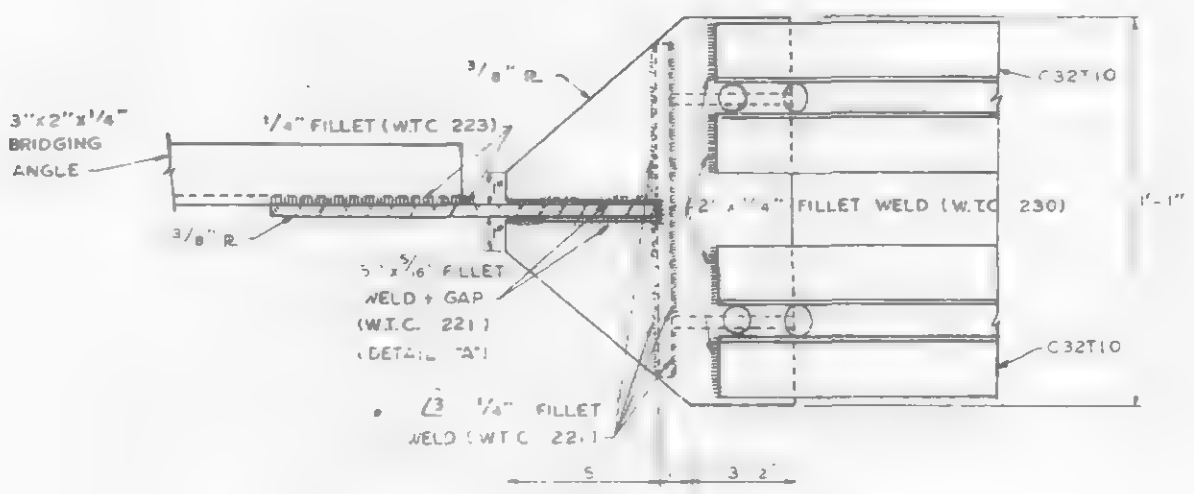
C32T10 TO 3" x 2" CONNECTION DETAIL (14-C)



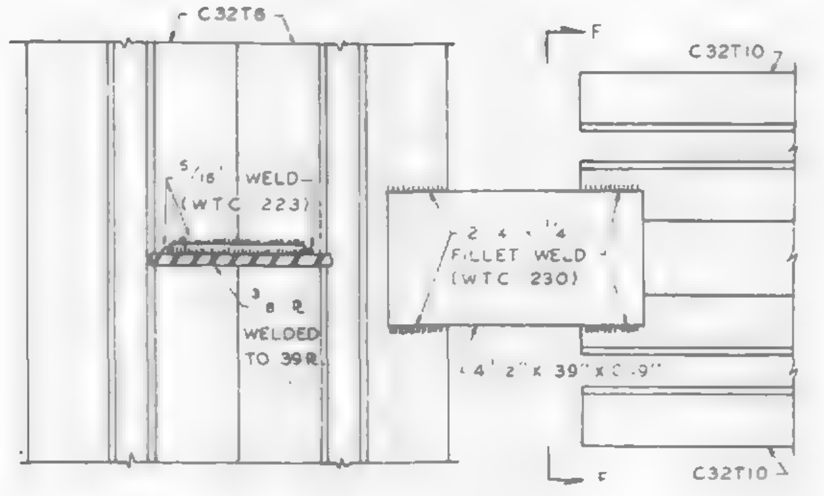
SECTION A-A



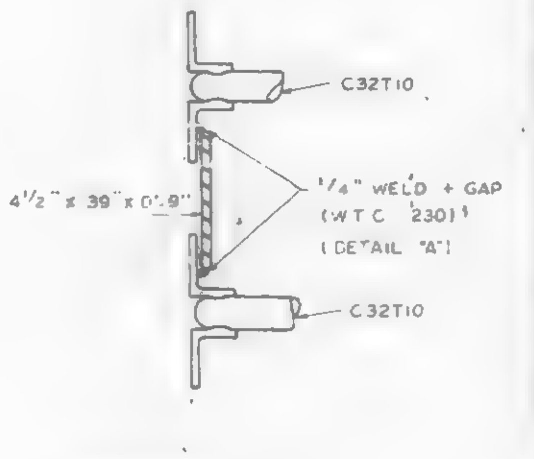
(3) SECTION C-C



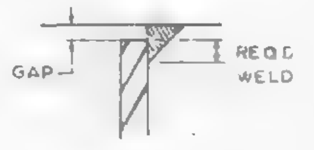
(3) SECTION B-B



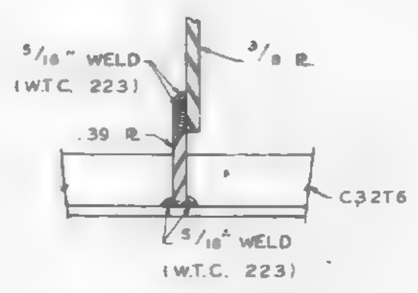
SECTION D-D



SECTION F-F



DETAIL "A"



SECTION E-E

REF. DRAWINGS

[illegible]	5-6-68
7-AB4-13.2	5-6-68
7-AB1-8	5-10-68
7-AB1-12	5-10-68

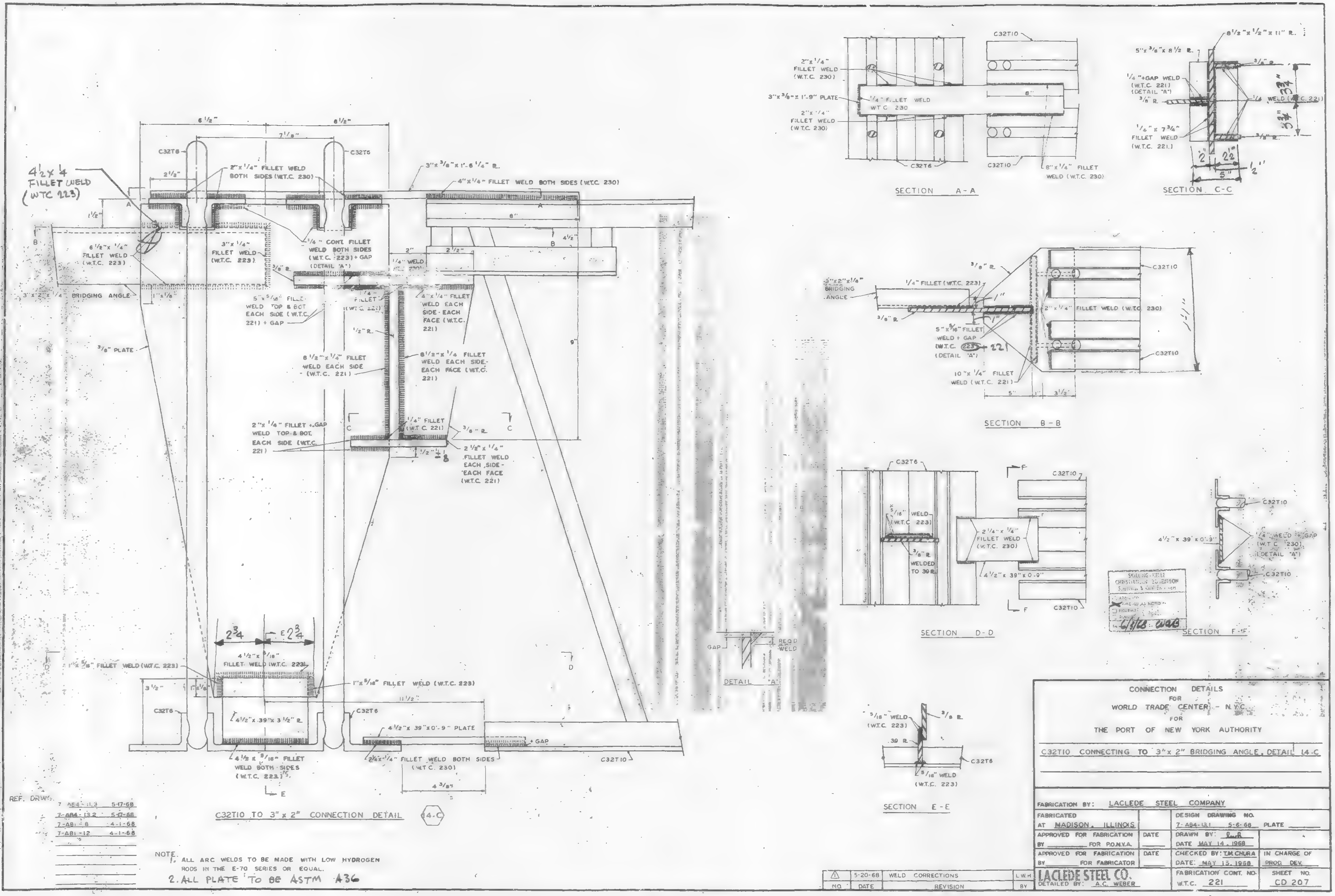
NOTE
1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATES TO BE ASTM A36. (2)

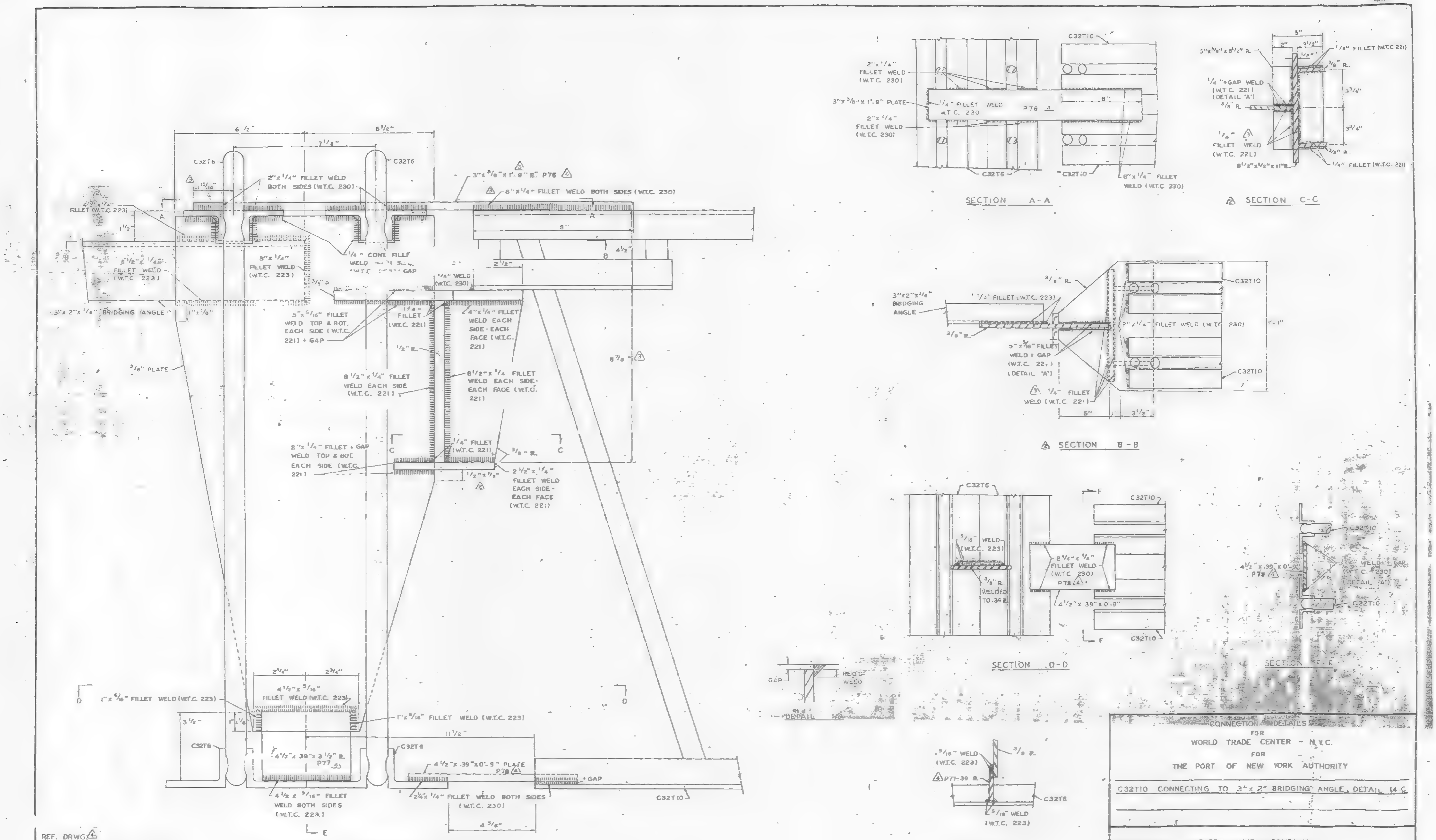
NO	DATE	REVISION	BY
3	5-20-68	DIMENSION & WELDS	L.W.H.
2	6-6-68	DIMENSIONS ADDED, NOTES	G.D.C.
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T10 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 14-C

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB4-13.1 5-6-68 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 6/25/68
DRAWN BY: [illegible] DATE MAY 14, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION CONT NO W.T.C. 221
SHEET NO. CD 207


C32T10 TO 3" x 2" CONNECTION DETAIL 14-C
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E
SECTION F-F
DETAIL "A"
4½ x ¼ FILLET WELD (WTC 223)
2"x¼" FILLET WELD BOTH SIDES (W.T.C. 230)
3"x⅜"x1'-6¼" PL.
4"x¼" FILLET WELD BOTH SIDES (W.T.C. 230)
6½"x¼" FILLET WELD (W.T.C. 223)
3"x¼" FILLET WELD (W.T.C. 223)
¼" CONT. FILLET WELD BOTH SIDES (W.T.C. 223) + GAP (DETAIL "A")
3"x2"x¼" BRIDGING ANGLE
⅜" PLATE
5"x5/16" FILLET WELD TOP & BOT EACH SIDE (W.T.C. 221) + GAP
8½"x¼" FILLET WELD EACH SIDE (W.T.C. 221)
8½"x¼ FILLET WELD EACH SIDE-EACH FACE (W.T.C. 221)
2"x¼" FILLET + GAP WELD TOP & BOT. EACH SIDE (W.T.C. 221)
2⅛"x¼" FILLET WELD EACH SIDE-EACH FACE (W.T.C. 221)
1"x5/16" FILLET WELD (W.T.C. 223)
4½"x5/16" FILLET WELD (W.T.C. 223)
4½"x39"x3½" PL.
4½"x39"x0'-9" PLATE
4½"x5/16" FILLET WELD BOTH SIDES (W.T.C. 223)
2¼"x¼" FILLET WELD BOTH SIDES (W.T.C. 230)
C32T6
C32T10
3"x⅜"x1'-9" PLATE
2"x¼" FILLET WELD (W.T.C. 230)
8"x¼" FILLET WELD (W.T.C. 230)
8½"x½"x11" PL.
5"x⅜"x8½" PL.
¼"+GAP WELD (W.T.C. 221) (DETAIL "A")
¼"x7⅜" FILLET WELD (W.T.C. 221)
5"x2"x¼" BRIDGING ANGLE
¼" FILLET (W.T.C. 223)
2"x¼" FILLET WELD (W.T.C. 230)
5"x5/16" FILLET WELD + GAP (W.T.C. 221) (DETAIL "A")
10"x¼" FILLET WELD (W.T.C. 221)
5/16" WELD (W.T.C. 223)
⅜" PL. WELDED TO 39 PL.
2¼"x¼" FILLET WELD (W.T.C. 230)
4½"x39"x0-9"
¼" WELD + GAP (W.T.C. 230) (DETAIL "A")
REF. DRWGS.
7-A84-11.3 5-17-68
7-A84-13.2 5-17-68
7-A81-8 4-1-68
7-A81-12 4-1-68
NOTE
1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATE TO BE ASTM A36
1 5-20-68 WELD CORRECTIONS L.W.H.
NO DATE REVISION BY
CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY
C32T10 CONNECTING TO 3"x2" BRIDGING ANGLE, DETAIL 14-C
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A.
APPROVED FOR FABRICATION BY FOR FABRICATOR
DESIGN DRAWING NO. 7-A84-11.1 5-6-68 PLATE
DRAWN BY: L.R.
DATE MAY 14, 1968
CHECKED BY: T.M. CHURA
DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 207



C32T10 TO 3" x 2" CONNECTION DETAIL (4-C)

REF. DRWG. (4)

7-A84-11.3 7-22-68
7-A84-13.2 10-15-68
7-A81-8 7-22-68
7-A81-12 7-22-68

NOTE:
1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATES TO BE ASTM A36. (2)

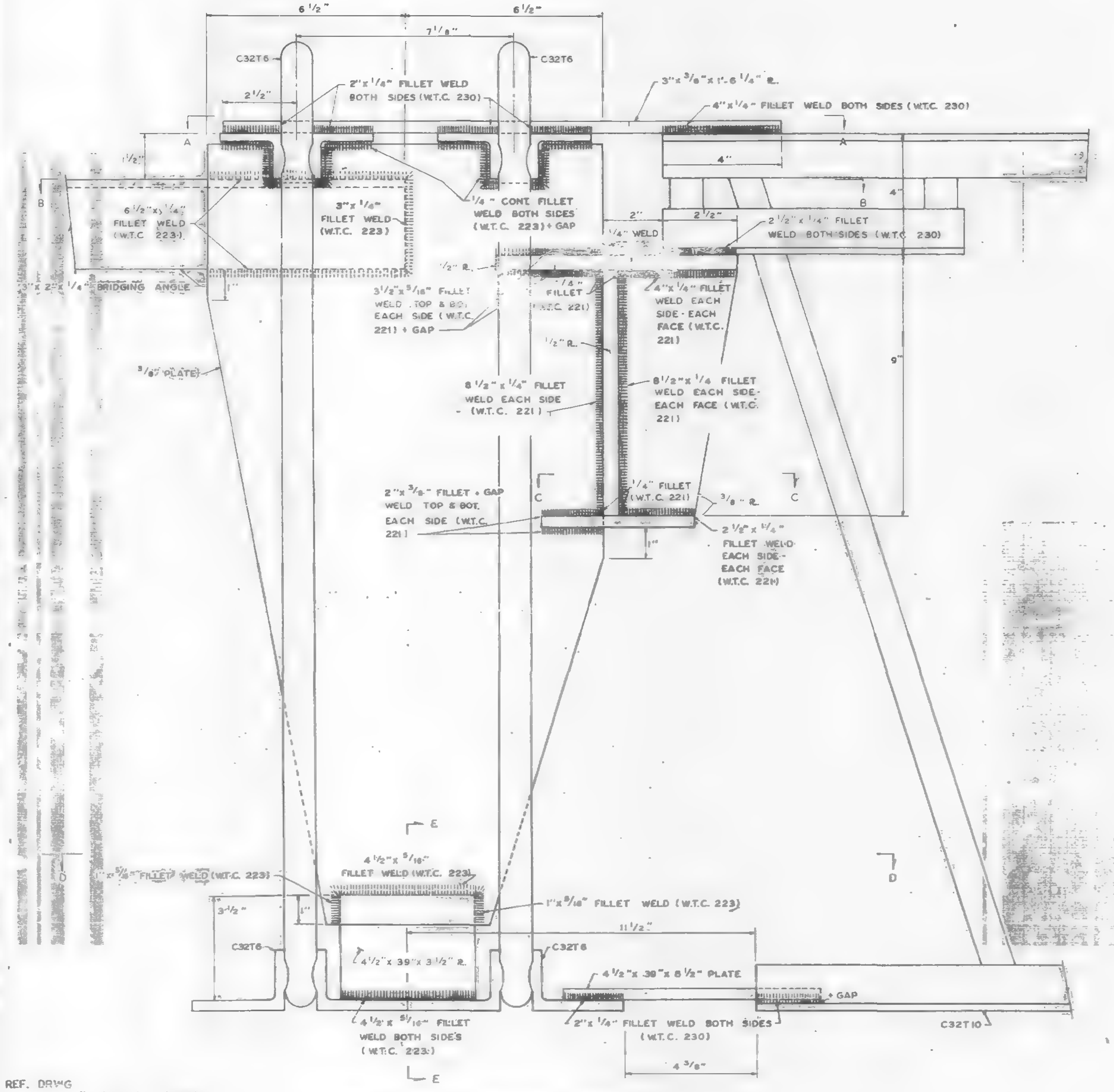
NO.	DATE	REVISION	BY
4	4-2-69	AS NOTED	
3	6-20-68	DIMENSION & WELDS	L.W.H.
2	5-6-68	DIMENSIONS ADDED, NOTES	G.D.C.
1	5-20-68	WELD CORRECTIONS	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

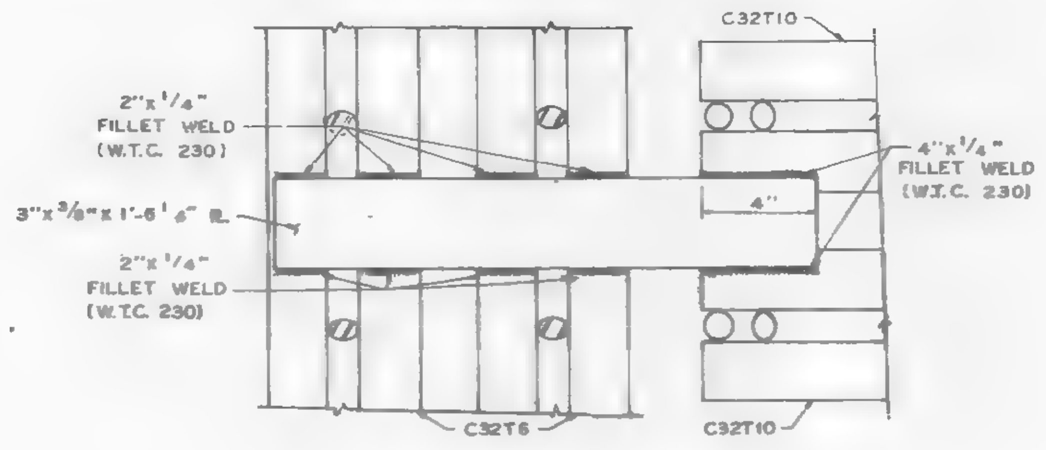
C32T10 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 14-C

FABRICATION BY: LACLEDE STEEL COMPANY

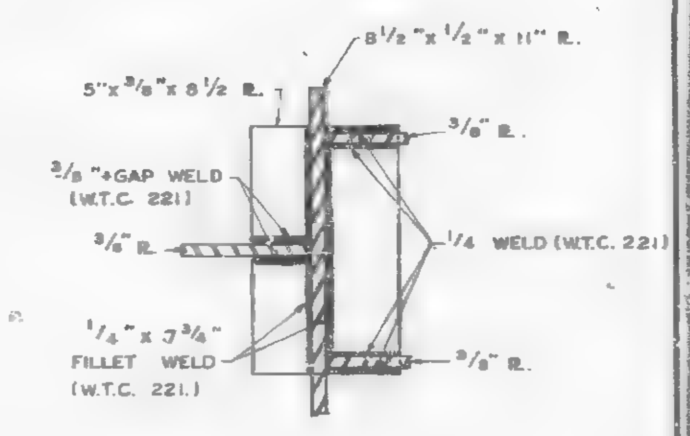
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-13.1 5-6-68 PLATE	
APPROVED FOR FABRICATION BY W. White FOR P.O.N.Y.A.	DATE 4/15/69	DRAWN BY: [illegible] DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 207



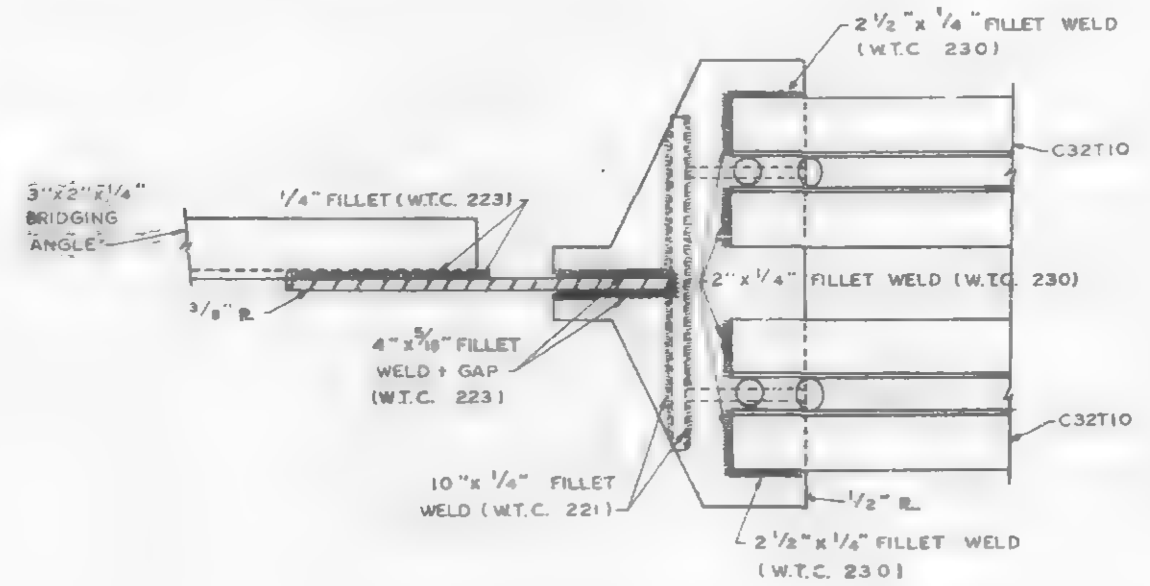
C32T10 TO 3" x 2" CONNECTION DETAIL (14-C)



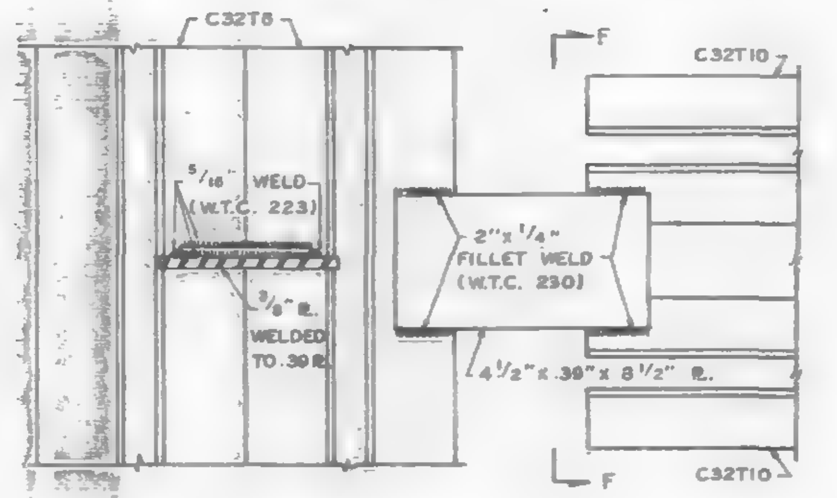
SECTION A-A



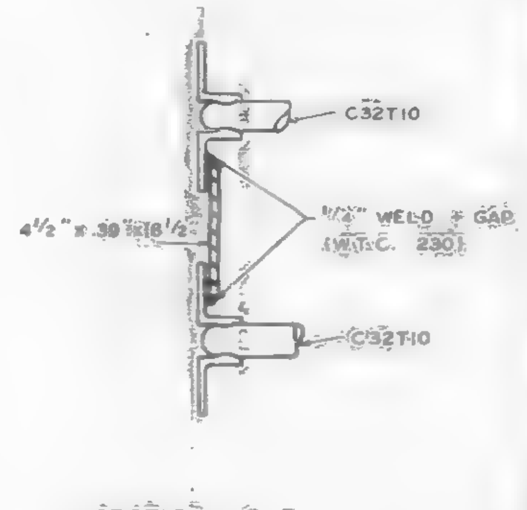
SECTION C-C



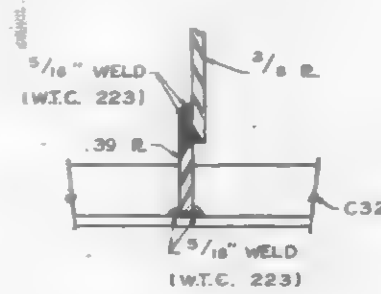
SECTION B-B



SECTION D-D



SECTION F-F



SECTION E-E

VOID

REF. DRWG

7-AB4-11.3	5-6-68
7-AB4-13.2	5-6-68
7-AB1-8	4-1-68
7-AB1-12	4-1-68

NOTE. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.

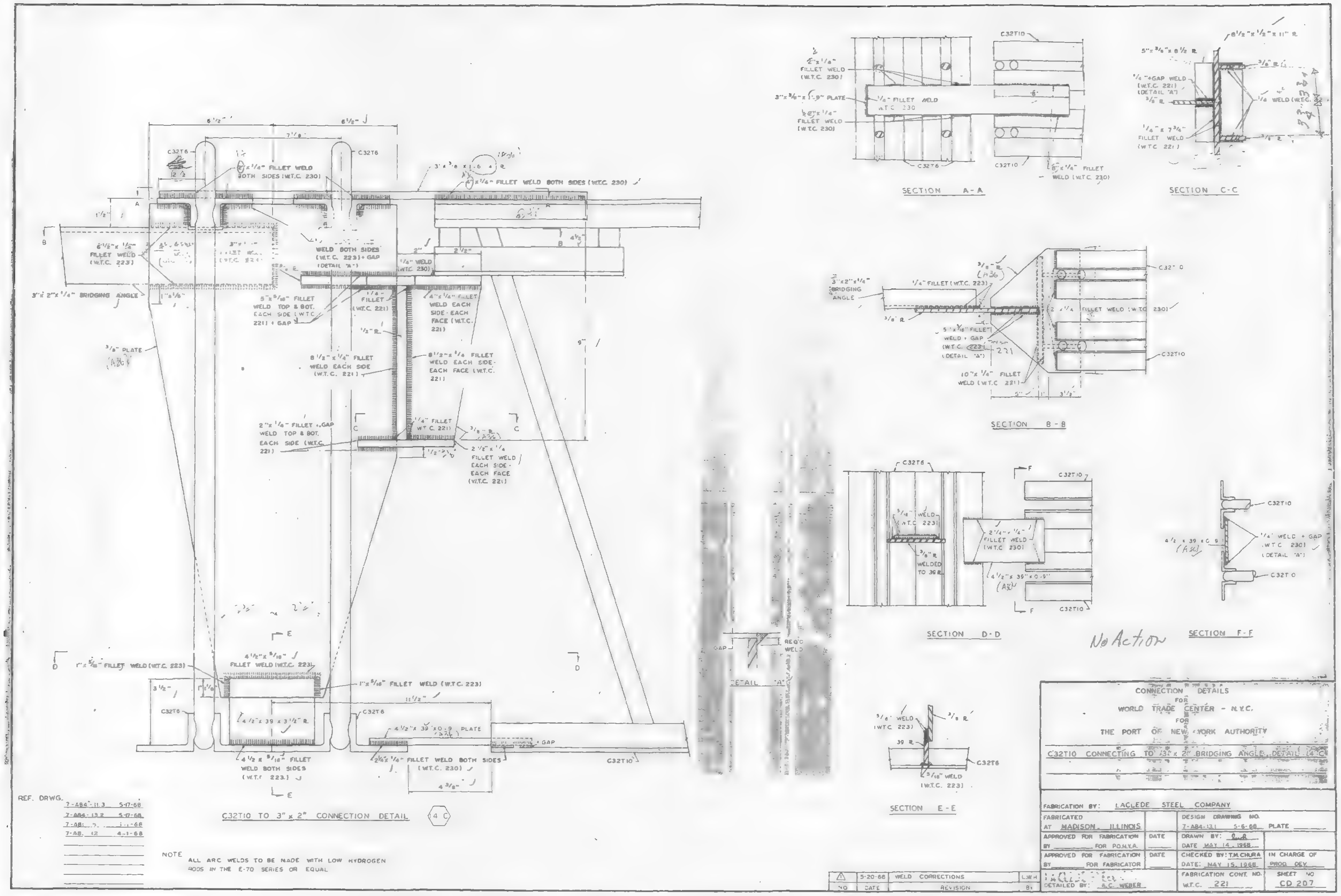
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

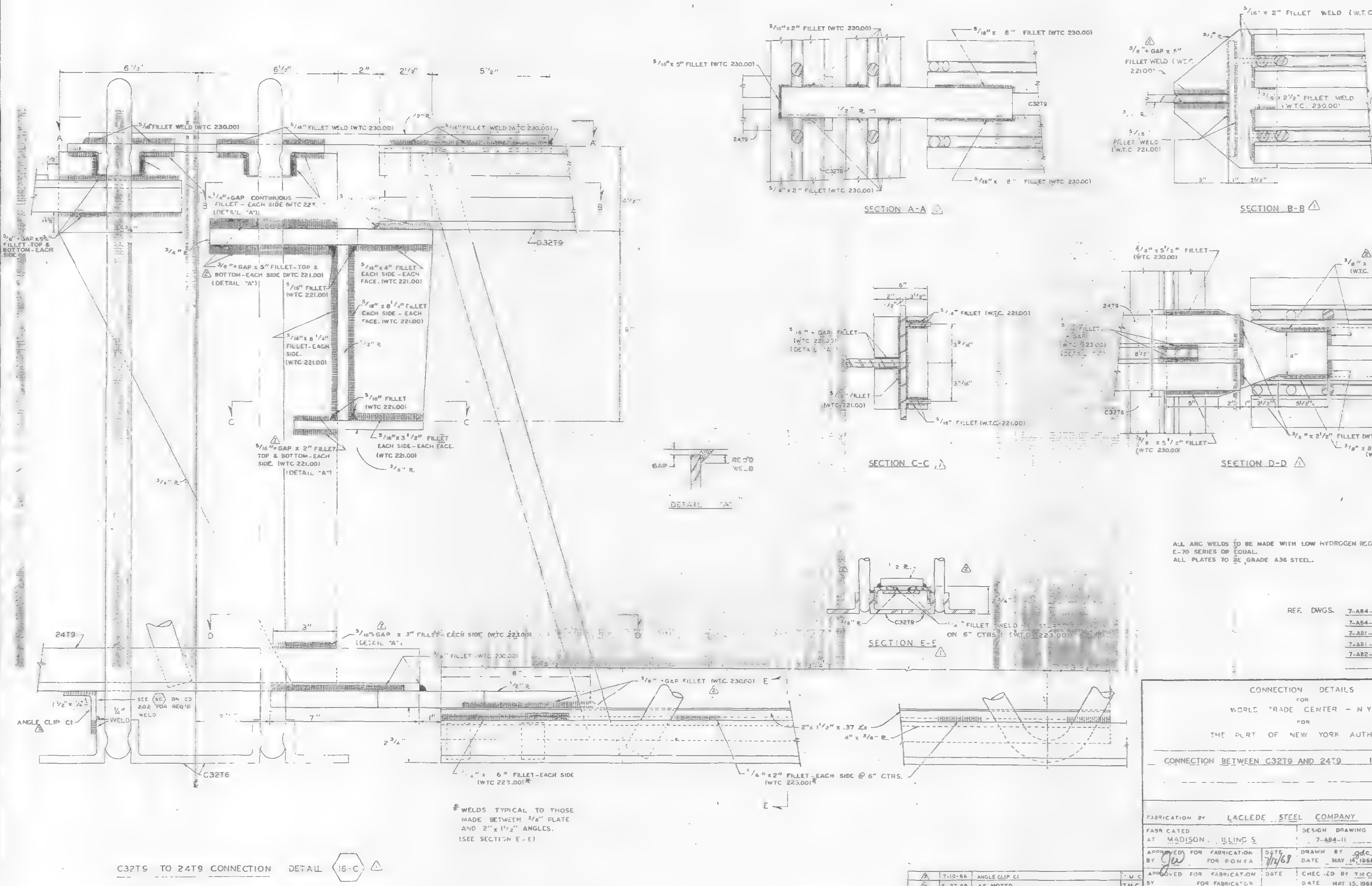
5/17/68

C32T10 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 14-C

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-13.1 5-6-68 PLATE	
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE	DRAWN BY: [illegible] DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 207


C32T10 TO 3" x 2" CONNECTION DETAIL 4C
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E
SECTION F-F
No Action
3" x 2" x 1/4" BRIDGING ANGLE
C32T6
C32T10
REF. DRWG.
NOTE
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
C32T10 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 4C
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A84-13.1 5-6-68 PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DRAWN BY: DATE MAY 14, 1968
CHECKED BY: T.M.CHURA DATE: MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO CD 207
5-20-68 WELD CORRECTIONS L.W.H.
NO DATE REVISION BY
1



C32T9 TO 24T9 CONNECTION DETAIL 16-C

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

REF. DWGS.

7-A84-11	5-6-68
7-A84-11.1	5-6-68
7-A81-7	5-10-68
7-A81-12	5-10-68
7-A82-4	4-1-68

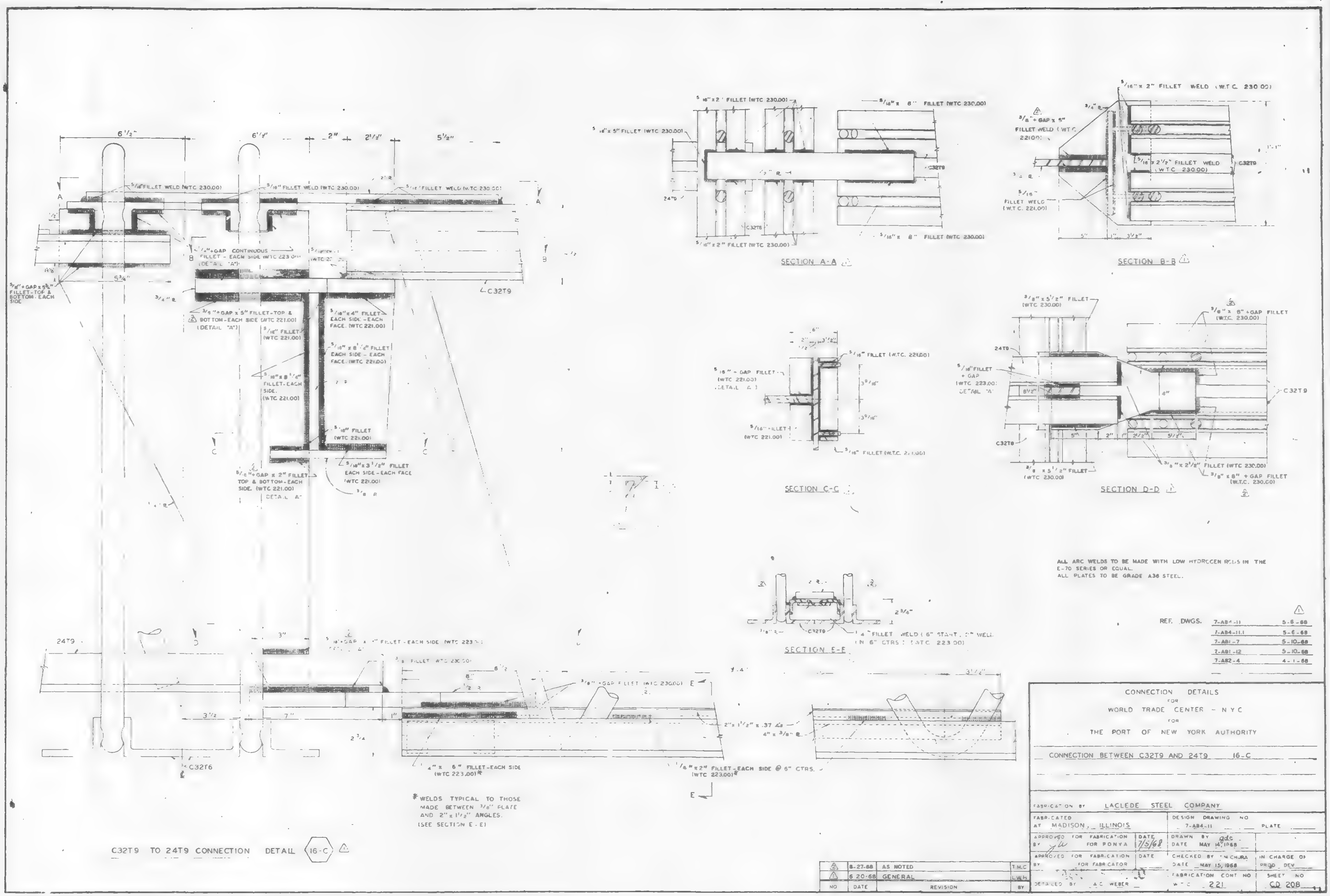
NO	DATE	REVISION	BY
3	7-10-68	ANGLE CLIP C1	M C
2	6-27-68	AS NOTED	T.M.C.
1	6-20-68	GENERAL	L.W.H.

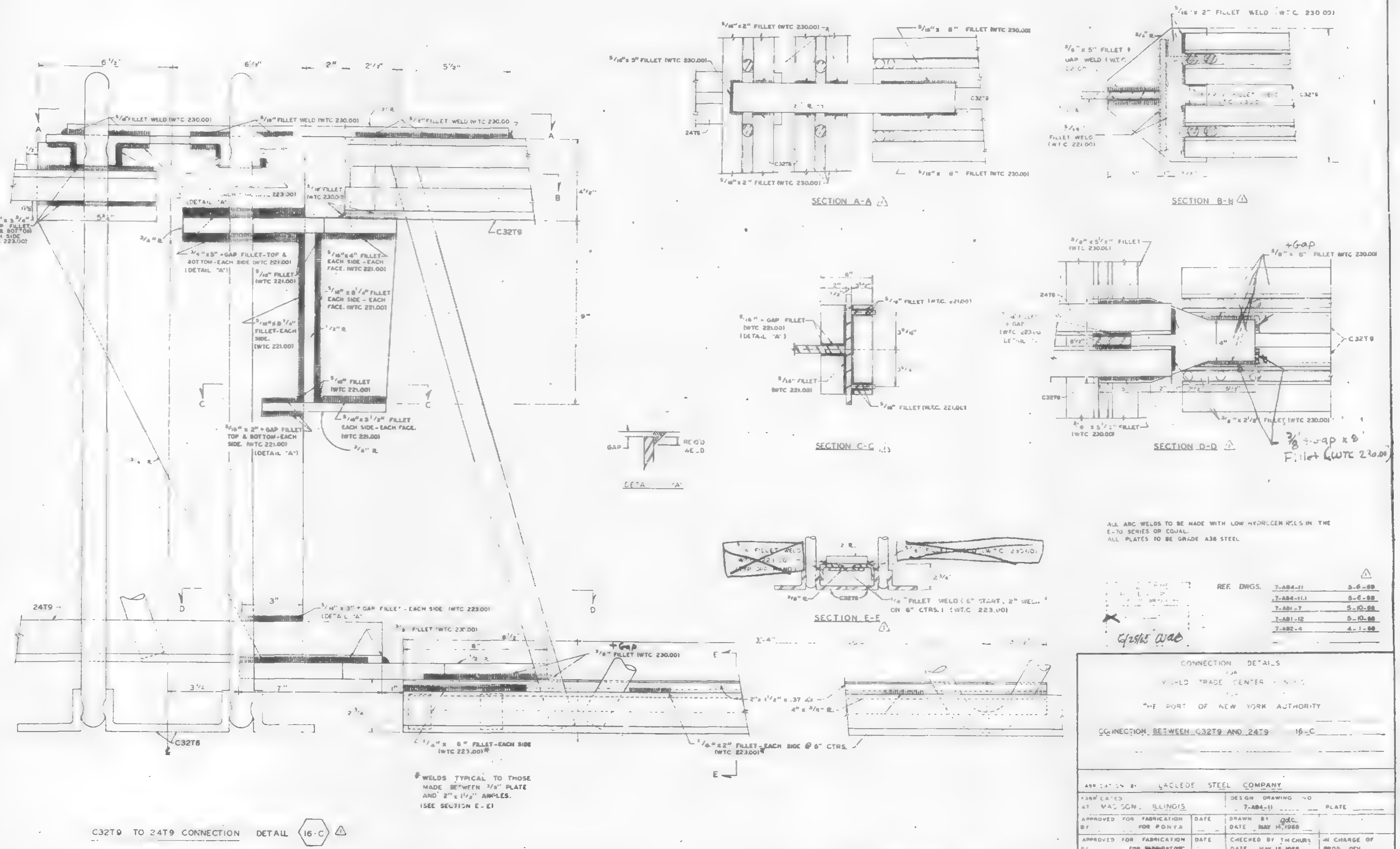
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T9 AND 24T9 16-C

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A84-11 PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 7/12/68
DRAWN BY gdc DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO. WTC 221
SHEET NO. CD 208

7-11


SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D
SECTION E-E
C32T9
24T9
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.
REF. DWGS.
7-AB4-11 5-6-68
7-AB4-11.1 5-6-68
7-AB1-7 5-10-68
7-AB1-12 5-10-68
7-AB2-4 4-1-68
* WELDS TYPICAL TO THOSE MADE BETWEEN 3/8" PLATE AND 2" x 1 1/2" ANGLES. (SEE SECTION E-E)
C32T9 TO 24T9 CONNECTION DETAIL 16-C
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY
CONNECTION BETWEEN C32T9 AND 24T9 16-C
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB4-11
PLATE
APPROVED FOR FABRICATION FOR PONYA
DATE 7/5/68
DRAWN BY gdc
DATE MAY 14, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
CHECKED BY T.M. CHURA
DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO CD 208
2 6-27-68 AS NOTED T.M.C.
1 6-20-68 GENERAL L.W.H.
NO DATE REVISION BY



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL

REF. DWGS.	
7-A84-11	5-6-68
7-A84-11.1	5-6-68
7-A81-7	5-10-68
7-A81-12	5-10-68
7-A82-4	4-1-68

6/25/65 wab

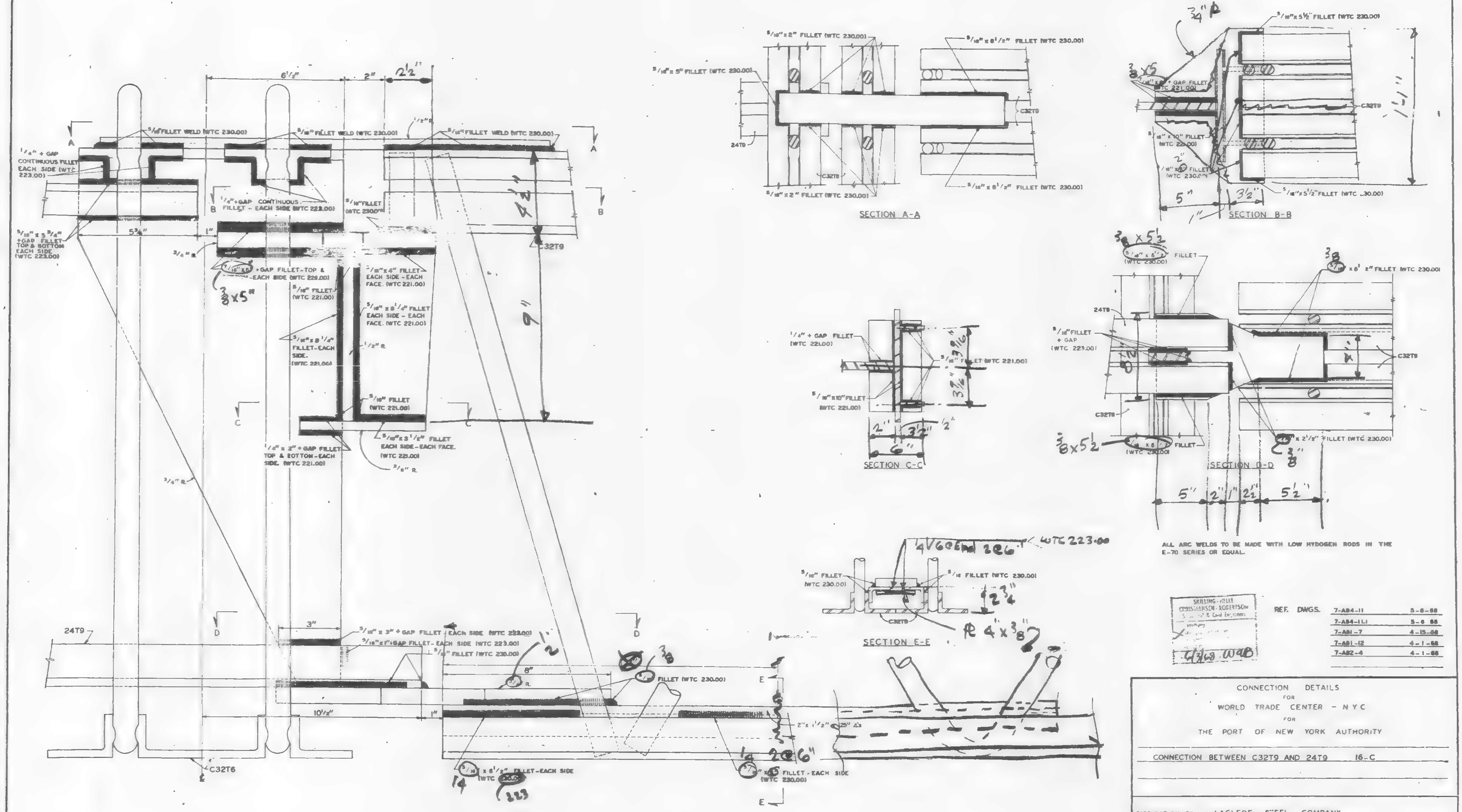
CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T9 AND 24T9 16-C

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-A84-11	PLATE
APPROVED FOR FABRICATION BY FOR PONYA	DATE	DRAWN BY gdc DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER	LACLEDE STEEL CO.	FABRICATION CONT NO W.T.C. 221	SHEET NO CD 208

NO	DATE	REVISION	BY
1	6-20-68	GENERAL	LWH



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.

REF. DWGS.

7-AB4-11	5-6-68
7-AB4-1L1	5-6-68
7-AB1-7	4-15-68
7-AB1-12	4-1-68
7-AB2-4	4-1-68

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T9 AND 24T9 16-C

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO. 7-AB4-11 PLATE

APPROVED FOR FABRICATION BY ___ FOR P.O.N.Y.A. DATE

DRAWN BY gdc DATE MAY 14, 1968

APPROVED FOR FABRICATION BY ___ FOR FABRICATOR DATE

CHECKED BY T.M. CHURA DATE MAY 15, 1968

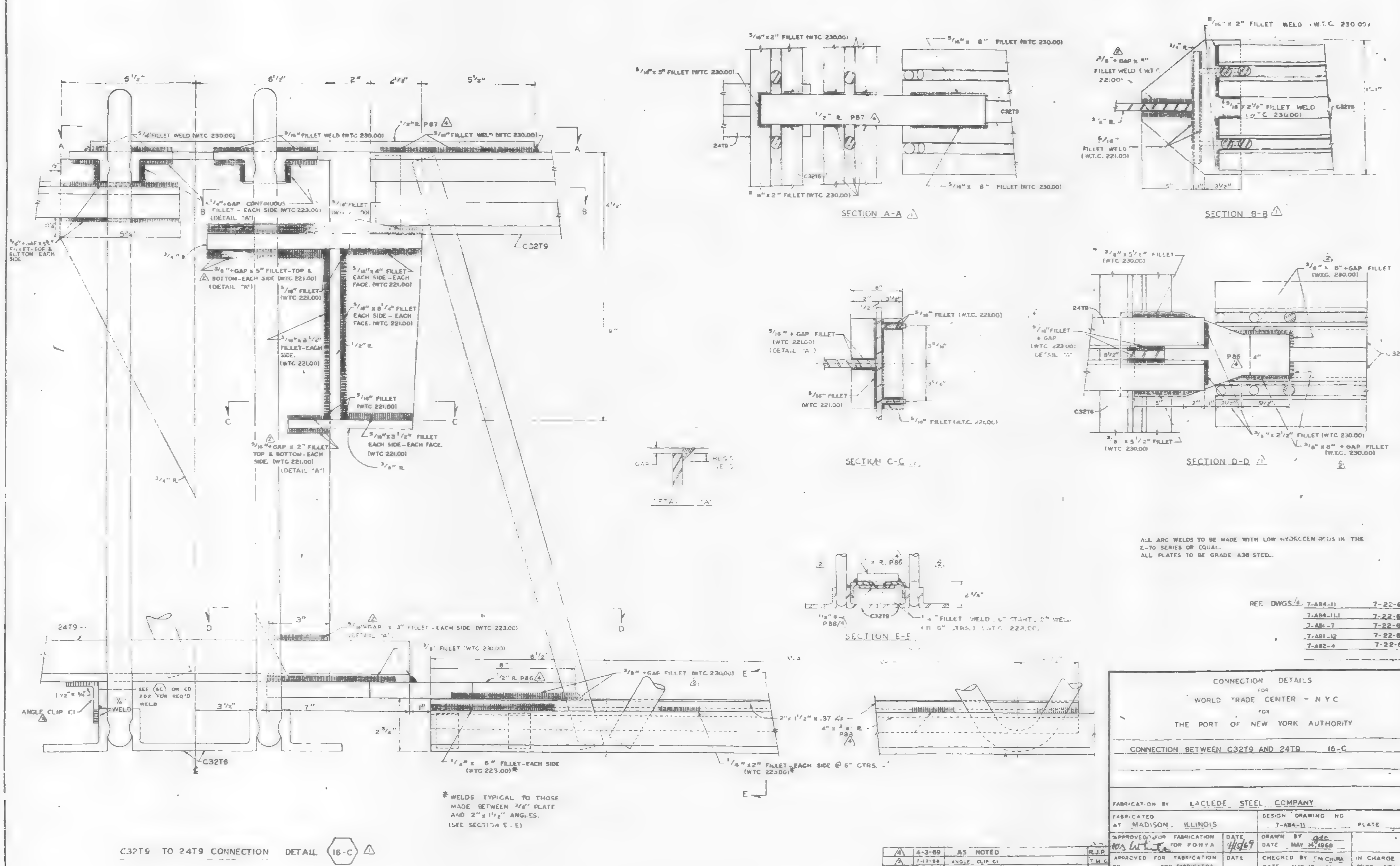
IN CHARGE OF PROD. DEV.

DETAILED BY A.C. WEBER

FABRICATION CONT. NO. W.T.C. 221

SHEET NO. CD 208

NO	DATE	REVISION	BY



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

REF. DWGS.

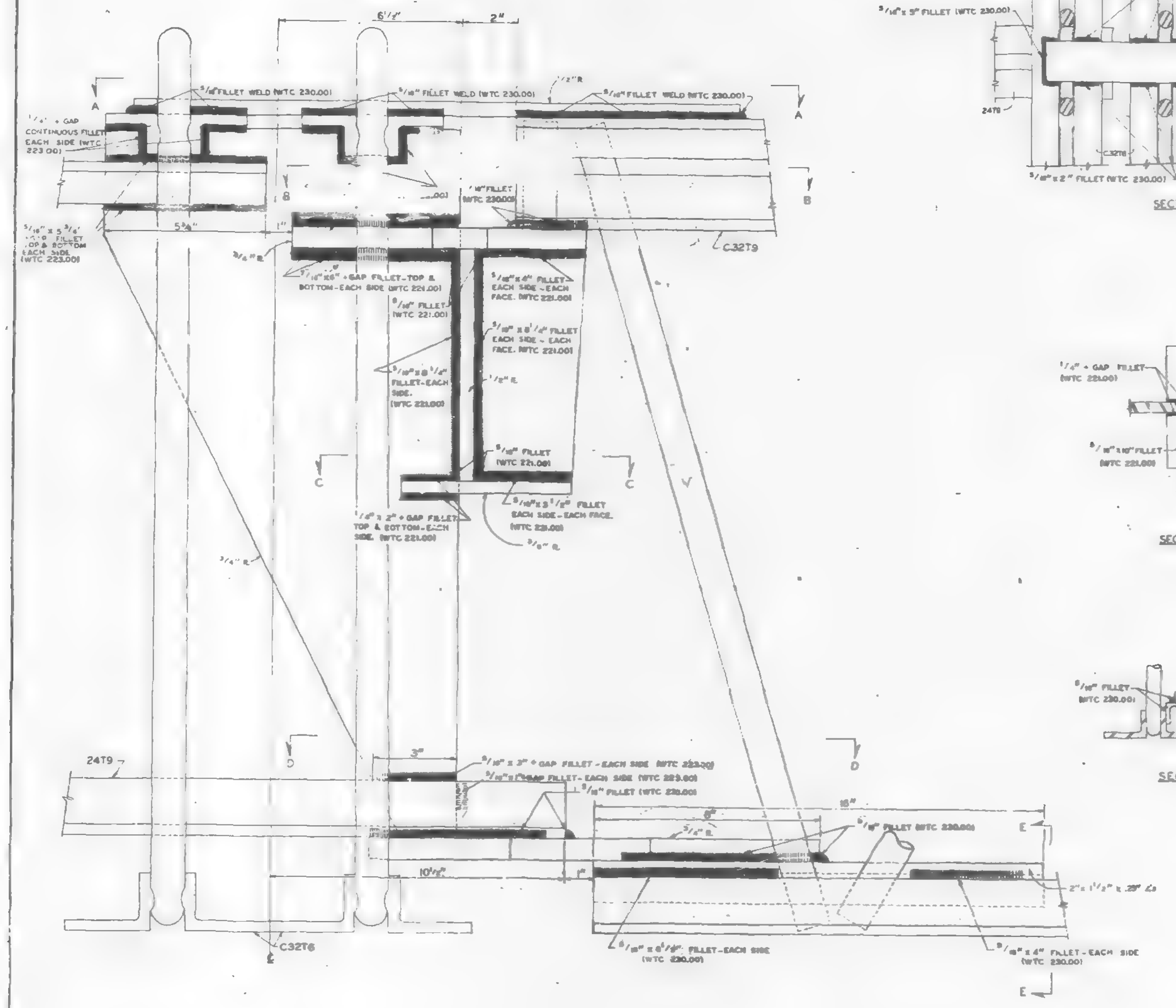
7-AB4-11	7-22-68
7-AB4-11.1	7-22-68
7-AB1-7	7-22-68
7-AB1-12	7-22-68
7-AB2-4	7-22-68

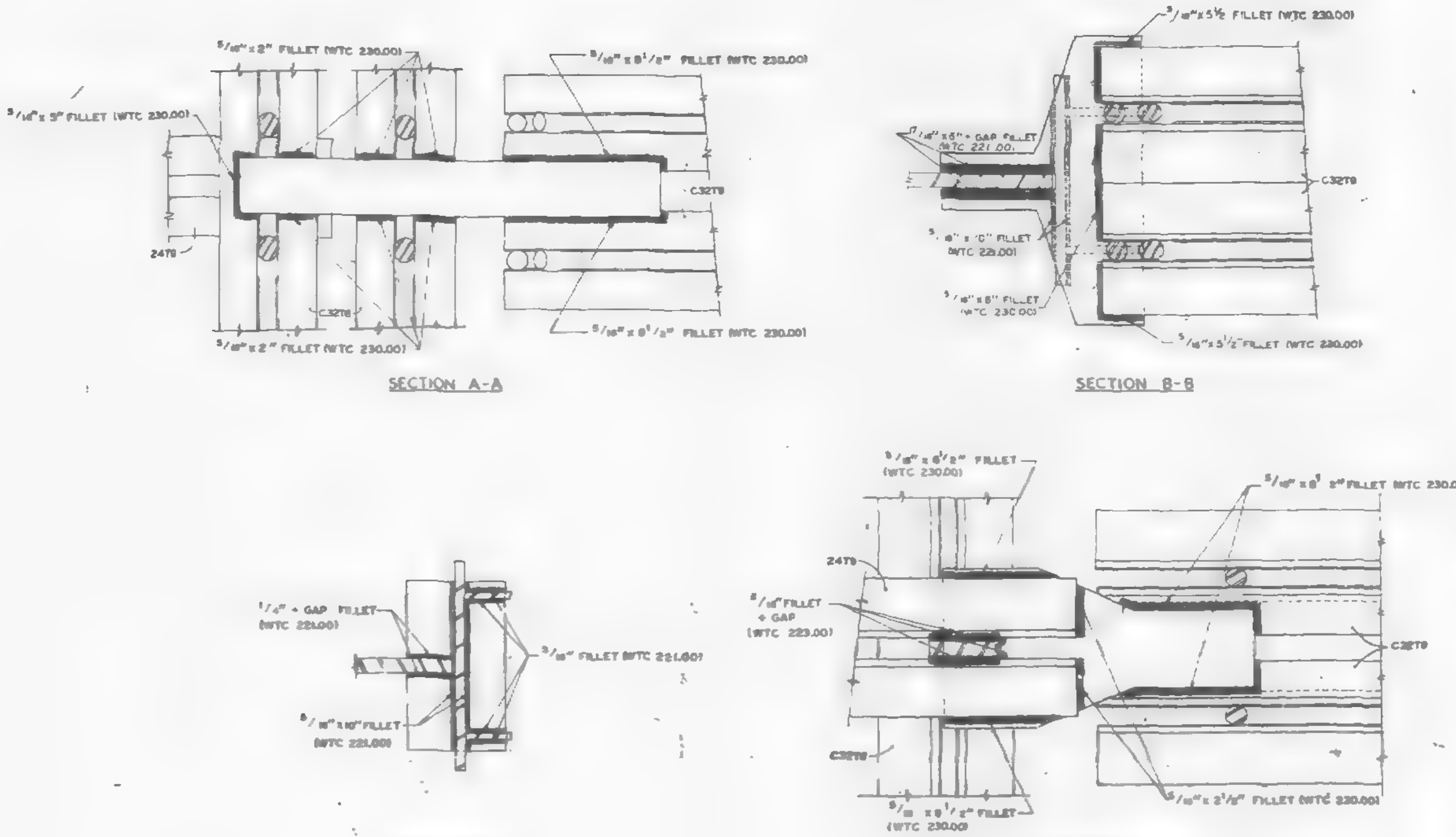
NO	DATE	REVISION	BY
4	4-3-69	AS NOTED	R.J.P.
3	7-10-68	ANGLE CLIP C1	T.M.C.
2	6-27-68	AS NOTED	T.M.C.
1	6-20-68	GENERAL	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T9 AND 24T9 16-C

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB4-11 PLATE
APPROVED FOR FABRICATION FOR PONYA — [signature] DATE 4/15/69
DRAWN BY gdc DATE MAY 14, 1968
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. CD 208



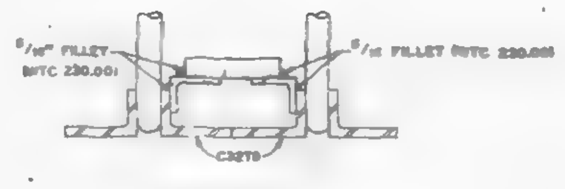


SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D



SECTION E-E

ALL ARC WELDS TO BE MADE WITH LOW HYDOGEN RODS IN THE E-70 SERIES OR EQUAL.

REF. DWGS.

7-A34-11	5-6-68
7-A84-1L1	5-6-68
7-A81-7	4-15-68
7-A81-12	4-1-68
7-A82-4	4-1-68

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T9 AND 24T9 16-C

FABRICATION BY LACLEDE STEEL COMPANY

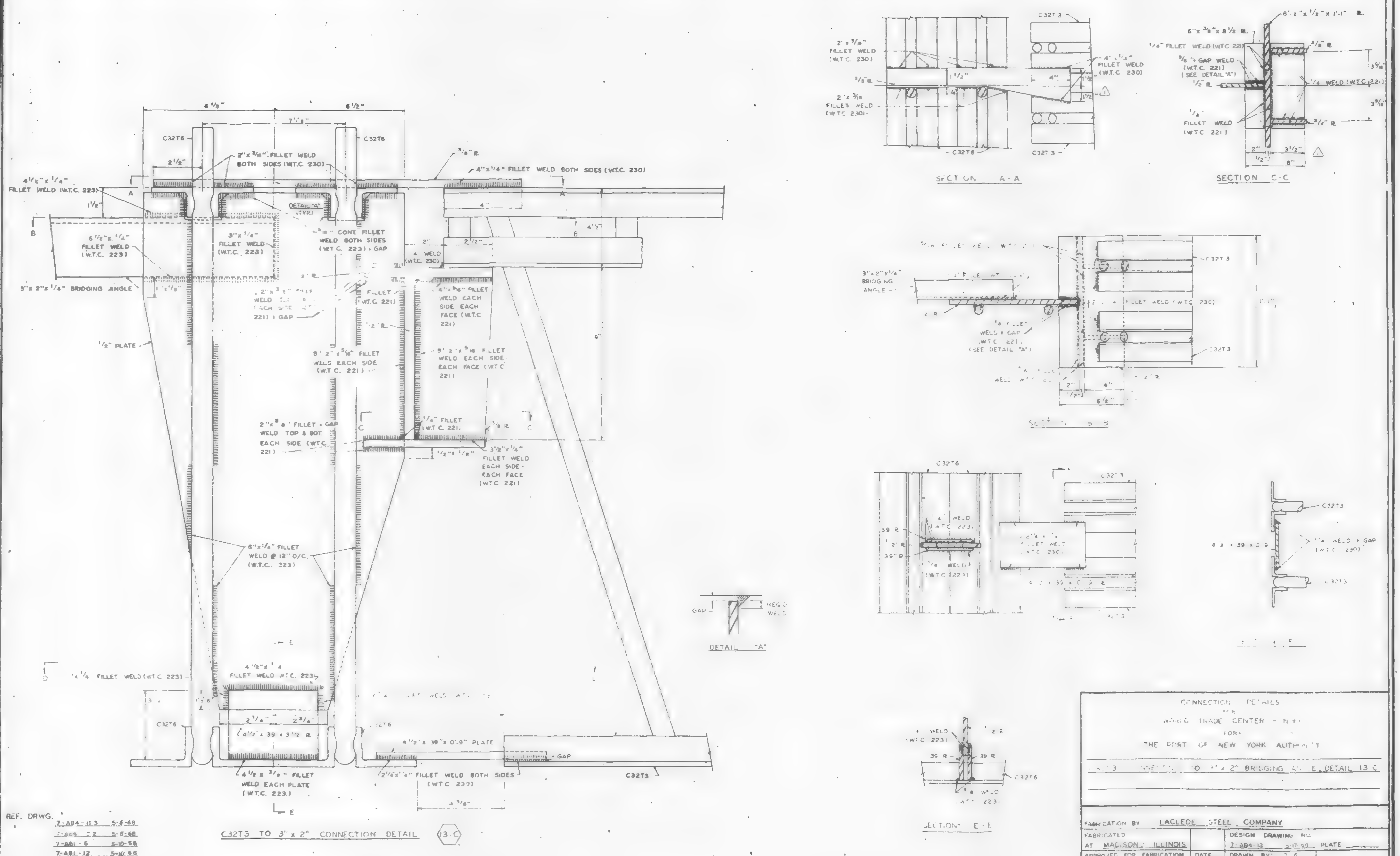
FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO 7-A84-11 | PLATE

APPROVED FOR FABRICATION BY FOR PONYA | DATE | DRAWN BY gdc DATE MAY 14, 1968

APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA DATE MAY 15, 1968 | IN CHARGE OF PROD DEV

DETAILED BY A.C. WEBER | FABRICATION CONT NO WTC 221 | SHEET NO CD 208

NO	DATE	REVISION	BY



C32T3 TO 3" x 2" CONNECTION DETAIL (13-C)

REF. DRWG.

7-AB4-113	5-6-68
7-AB4-12	5-6-68
7-AB1-6	5-10-68
7-AB1-12	5-10-68

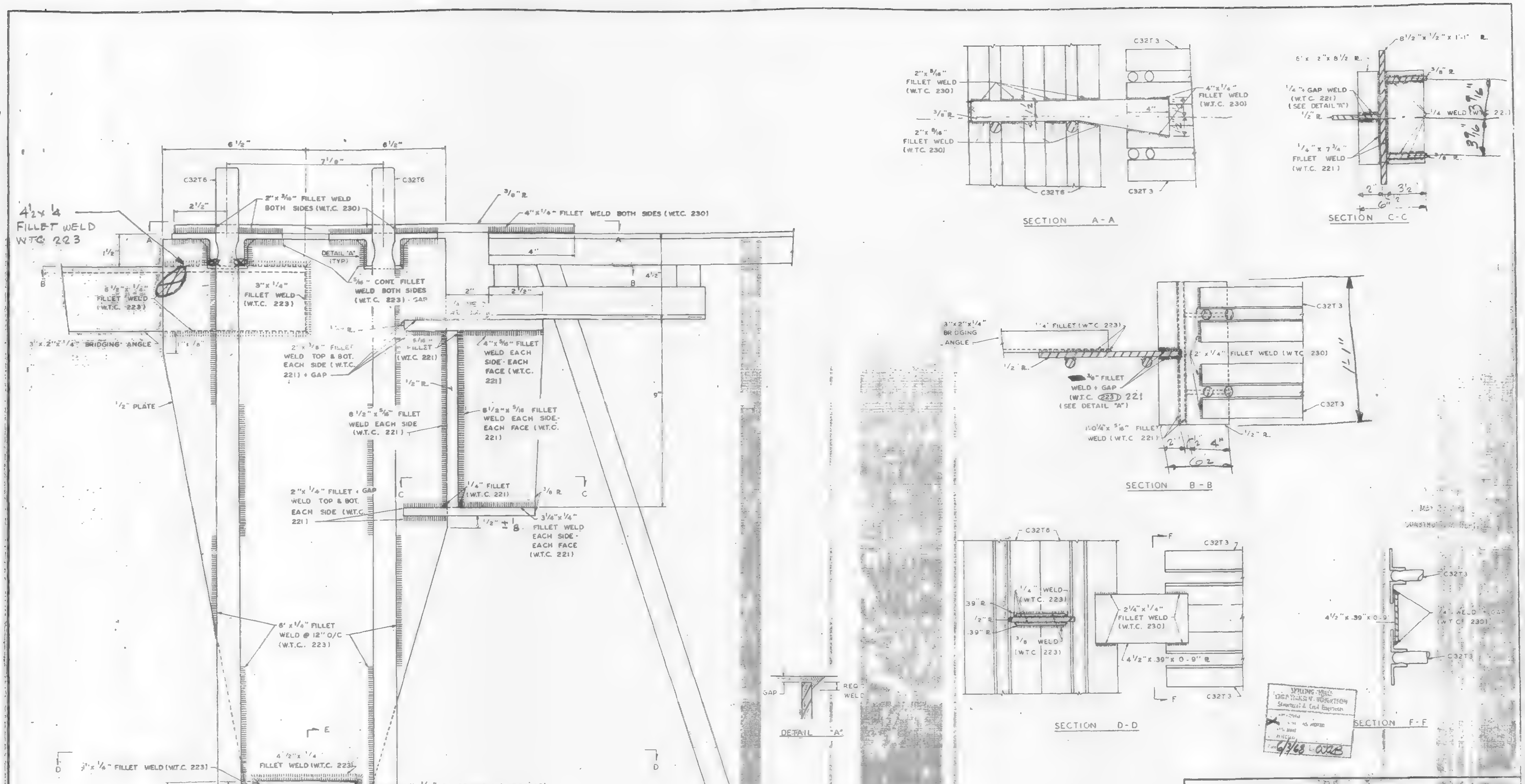
NOTE
1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
2. ALL PLATES TO BE ASTM A36.

NO	DATE	REVISION	BY
1	6-20-68	DIMENSIONS ADDED, NOTE TWO	L.W.H.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T3 CONNECTION TO 3" x 2" BRIDGING ANGLE, DETAIL 13 C

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB4-13 5-17-68 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 6/25/67
DRAWN BY: [illegible] DATE MAY [illegible] 68
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE MAY [illegible] 68
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION UNIT NO. W.T.C. 221
SHEET NO. CD 209



REF. DWGS.

7-AB4-13.3	5-17-68
7-AB4-13.2	5-17-68
7-AB1-6	4-15-68
7-AB1-12	4-1-68

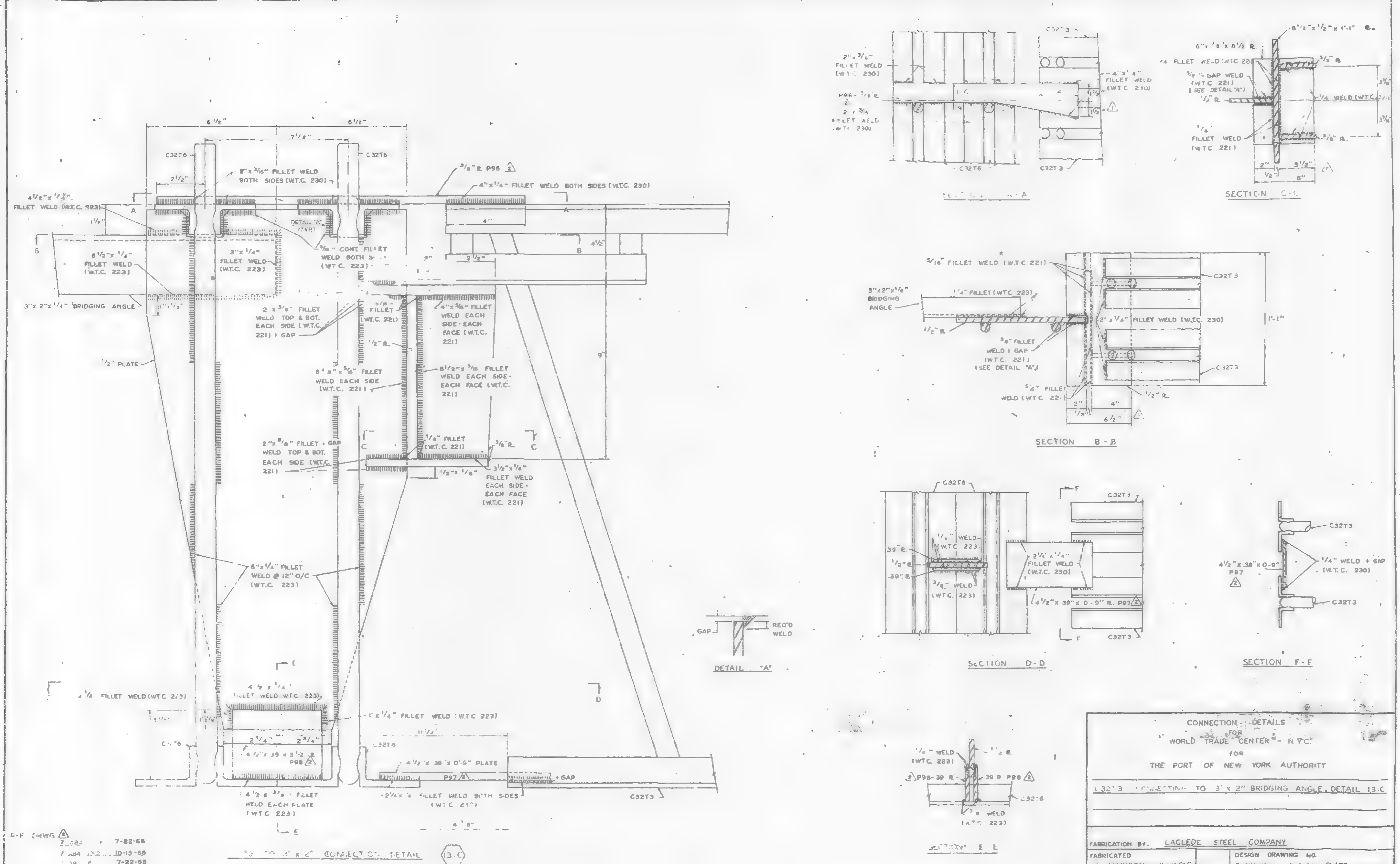
NOTE

1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATE TO BE ASTM A36

CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

C32T3 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 13-C

FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-13 5-17-68	PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE	DRAWN BY: R.R. DATE MAY 14, 1968	
APPROVED FOR FABRICATION BY LACLEDE STEEL CO.	DATE	CHECKED BY: T.M. CHURA DATE: MAY 15, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER		FABRICATION CONT NO W.T.C. 221	SHEET NO CO 209



2. ALL PLATES TO BE ASTM A36.

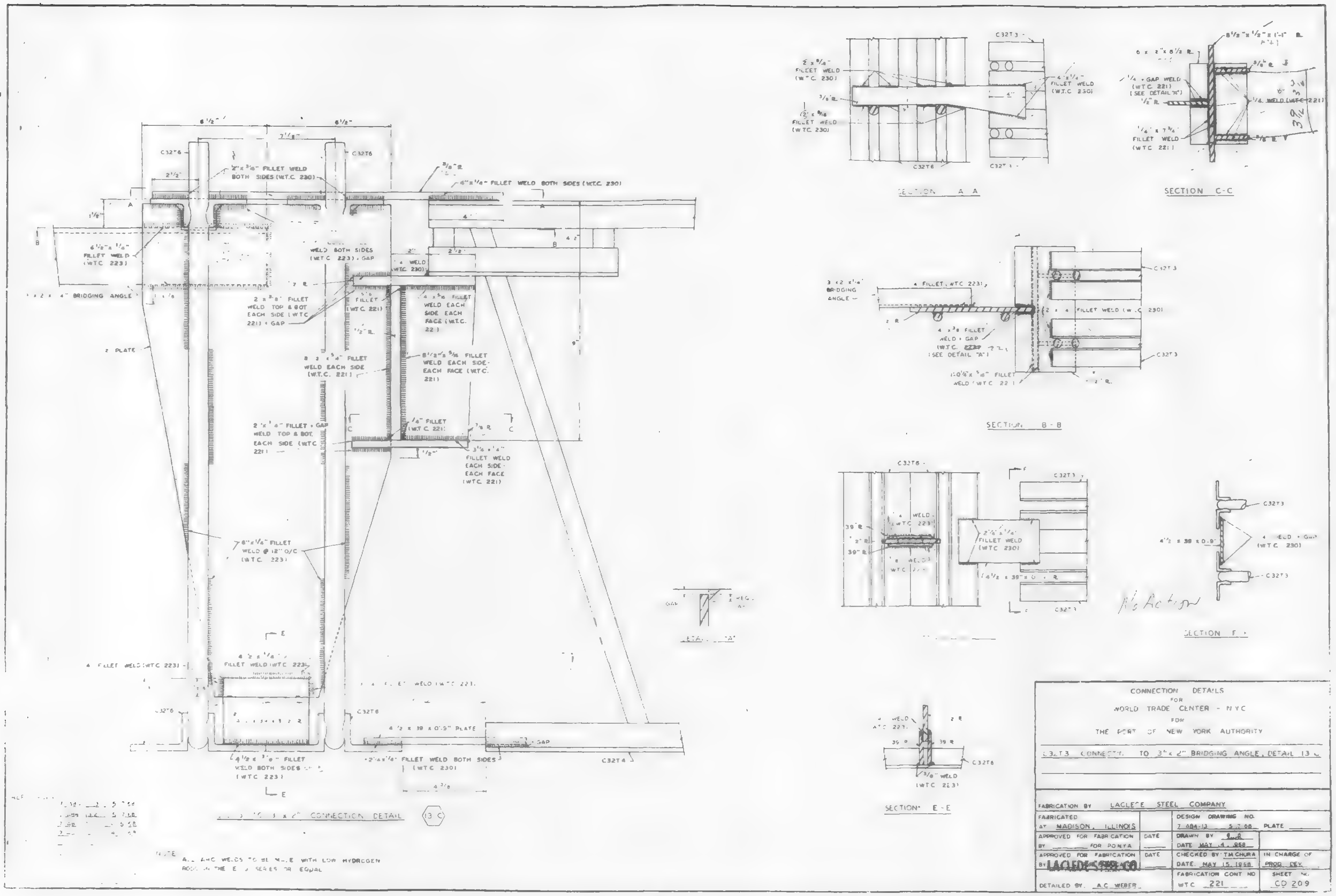
NO	DATE	REVISION	BY
2	4-3-69	AS NOTED	R.J.P.
1	6-20-68	DIMENSIONS ADDED, NOTE TWO	L.A.H.

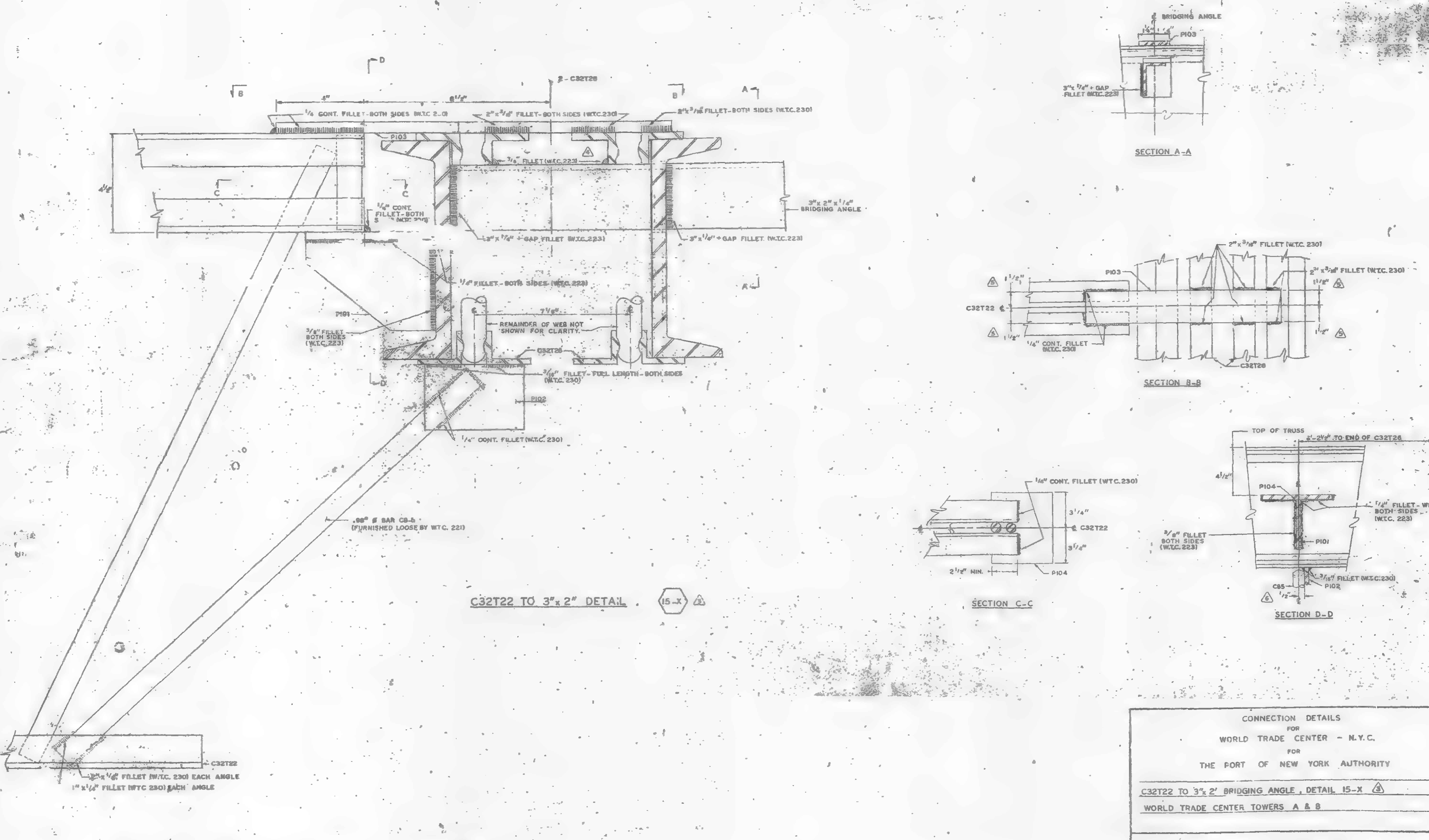
CONNECTION DETAILS FOR WORLD TRADE CENTER - N.Y.C. FOR THE PORT OF NEW YORK AUTHORITY

C32T3 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 13-C

FABRICATION BY. LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-13 5-17-68 PLATE	
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 4/15/69	DRAWN BY	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE MAY 15, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A. WEBER		FABRICATION CONT. NO. WT 221	SHEET NO. CD 209


SECTION A-A
SECTION C-C
SECTION B-B
SECTION E-E
SECTION F-F
DETAIL "A"
C32T3 "C" TO 3" x 2" CONNECTION DETAIL 13 C
NOTE: ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN ROD IN THE E SERIES OR EQUAL
No Action
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - NYC
FOR
THE PORT OF NEW YORK AUTHORITY
C32T3 CONNECTION TO 3" x 2" BRIDGING ANGLE, DETAIL 13 C
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY FOR PONYA
DATE
APPROVED FOR FABRICATION BY LACLEDE STEEL CO.
DATE
DETAILED BY A.C. WEBER
DESIGN DRAWING NO. 7 484-13 5.7.68 PLATE
DRAWN BY
DATE MAY 4, 1968
CHECKED BY T.M. CHURA
DATE MAY 15, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT. NO. WTC 221
SHEET NO. CD 209



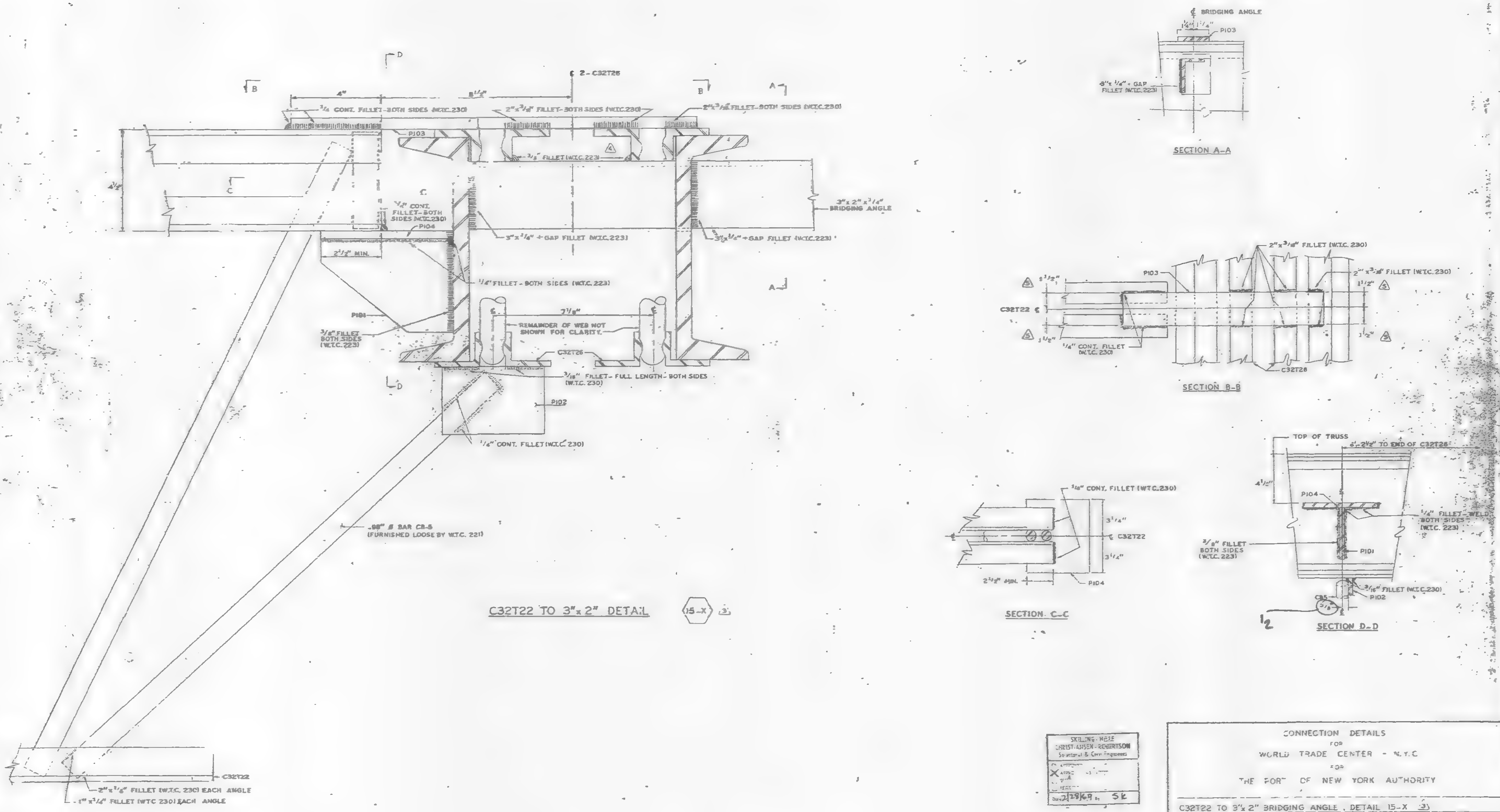
NOTES:
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL +GAP FILLET WELDS.

NO.	DATE	REVISION	BY
6	3-5-69	AS NOTED	G.D.C.
5	2-25-69	℞ P103 SIZE	G.D.C.
4	2-5-69	AS NOTED	G.D.C.
3	1-13-69	AS NOTED	G.D.C.
2	12-27-68	AS NOTED	G.D.C.
1	10-17-68	GENERAL	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

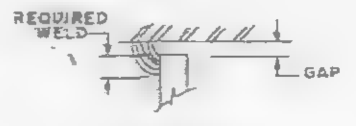
C32T22 TO 3" x 2' BRIDGING ANGLE, DETAIL 15-X (3)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE 3/13/69
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATA
LACLEDE STEEL CO. DETAILED BY ... A. GARE WEBER
DESIGN DRAWING NO
DRAWN BY: gdc DATE OCT. 4, 1968
CHECKED BY: T.M.CHURA DATE OCT. 4, 1968
FABRICATION CONT. NO. W.T.C. 241
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO CD 210



NOTES:

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL +GAP FILLET WELDS.



DETAIL "A"

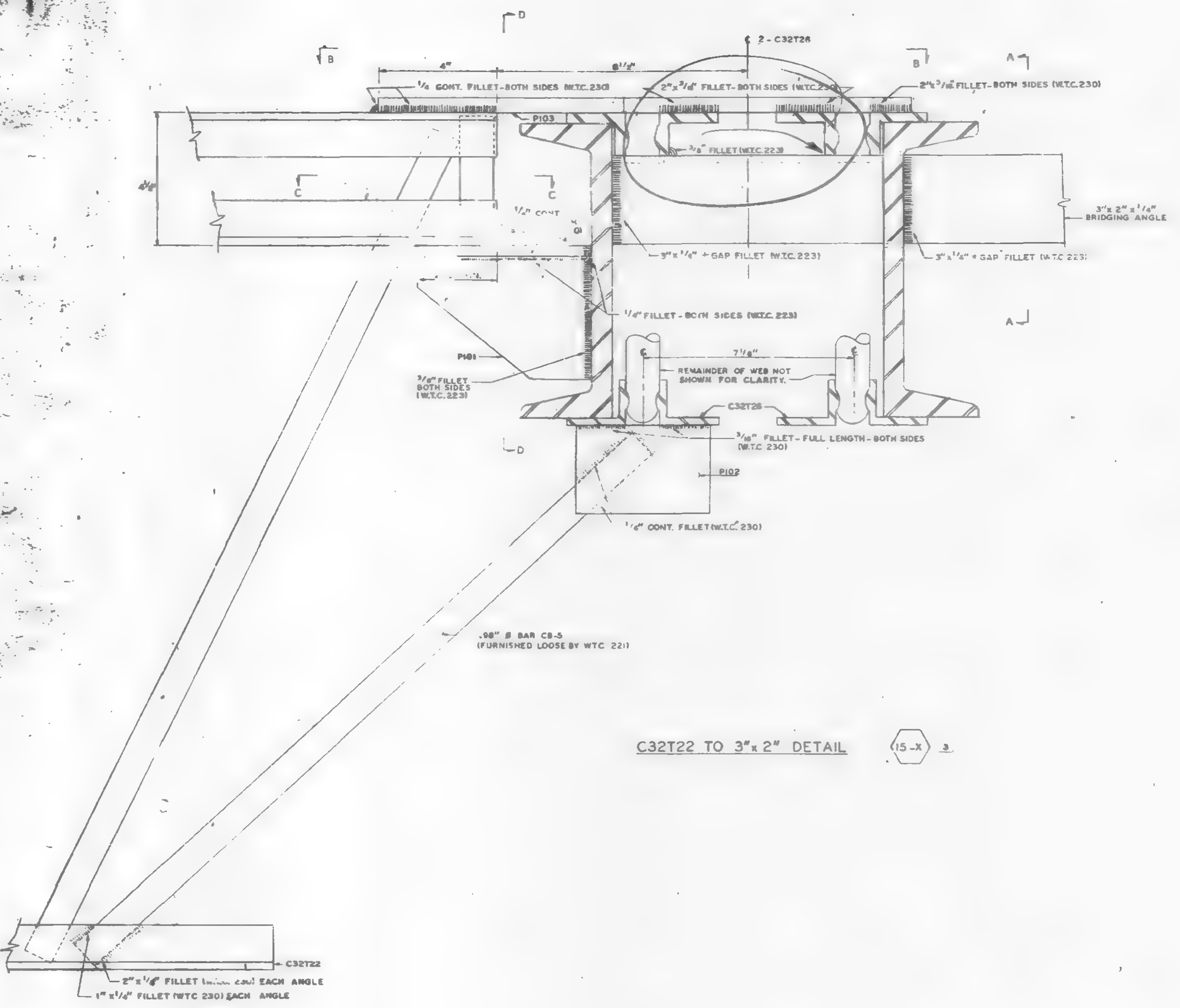
NO.	DATE	REVISION	BY
5	2-25-69	P103 SIZE	G.D.C.
4	2-5-69	AS NOTED	G.D.C.
3	1-13-69	AS NOTED	G.D.C.
2	12-27-68	AS NOTED	G.D.C.
1	10-17-68	GENERAL	G.D.C.

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
X APPROVED [illegible]
Date 2/28/69 By SK

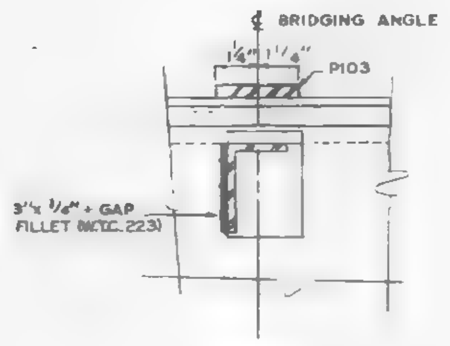
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T22 TO 3"x 2" BRIDGING ANGLE, DETAIL 15-X 3
WORLD TRADE CENTER TOWERS A & B

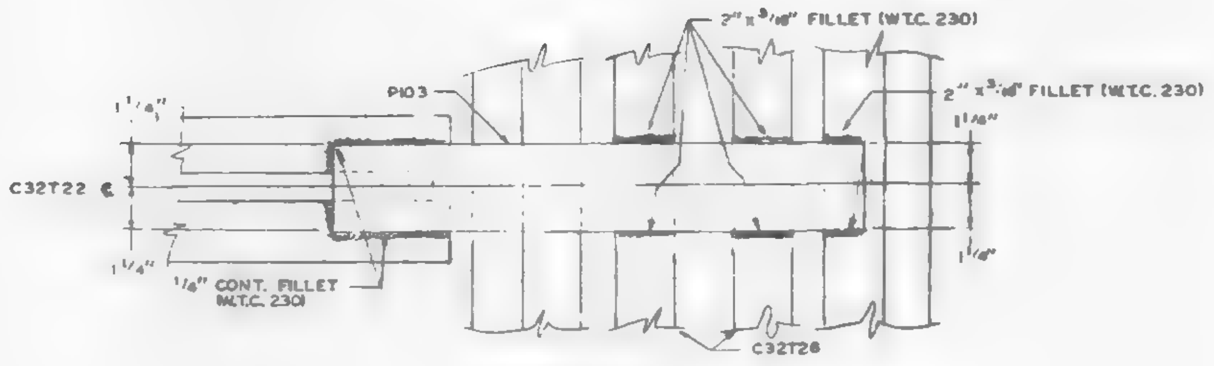
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO.
PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE
DRAWN BY: gdc DATE OCT. 4, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE OCT. 4, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY LACLEDE STEEL CO.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD-210



C32T22 TO 3"x 2" DETAIL (15-X) 3



SECTION A-A



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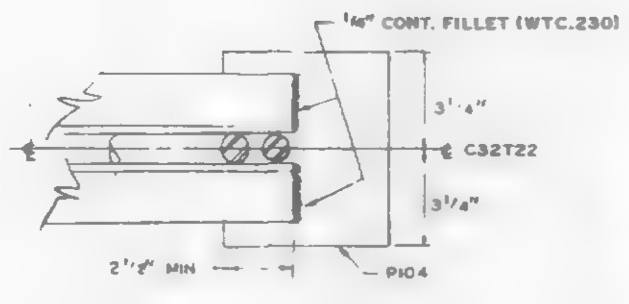
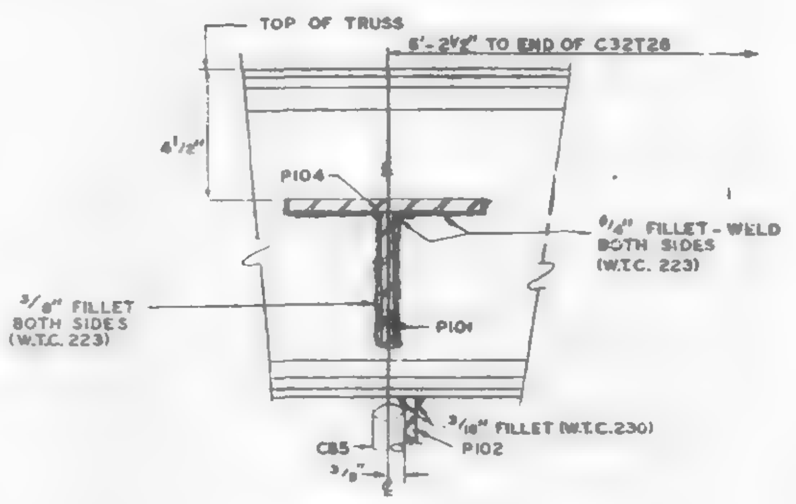


SECTION C-C



SECTION D-D

NOTES:

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL + GAP FILLET WELDS.

DETAIL "A"

SKILLING - HELLE CHRISTIANSEN - ROBERTSON Structural & Civil Engineers

1/30/69 SK

NO.	DATE	REVISION	BY
3	1-13-68	AS NOTED	G.D.C.
2	12-27-68	AS NOTED	G.D.C.
1	10-17-68	GENERAL	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T22 TO 3"x 2" BRIDGING ANGLE, DETAIL 15-X 3

WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE

APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE

DETAILED BY A. CARL WEBER

DESIGN DRAWING NO.

DRAWN BY: gdc DATE OCT. 4, 1968

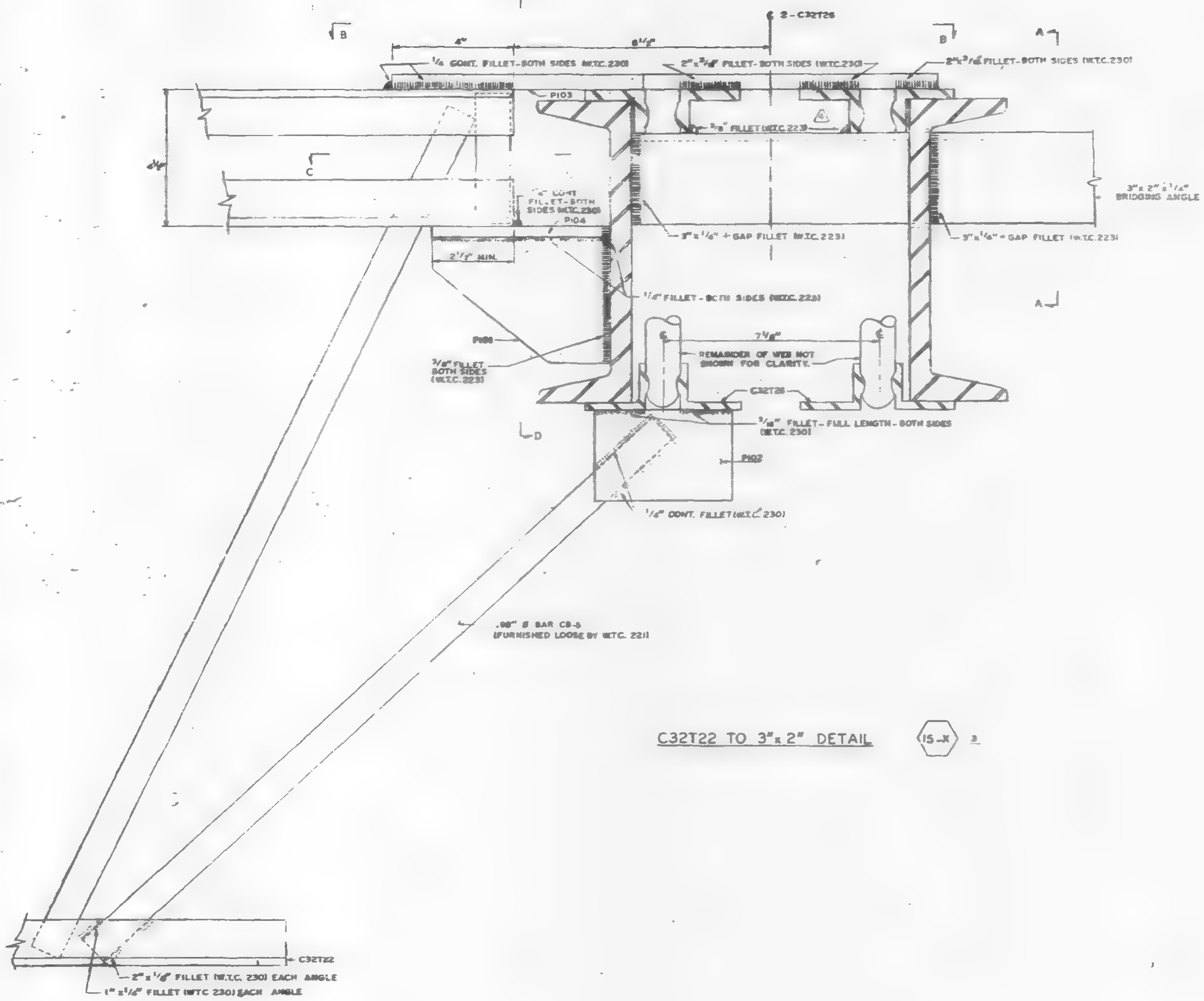
CHECKED BY T.M.CHURA DATE OCT. 4, 1968

FABRICATION CONT. NO. W.T.C. 221

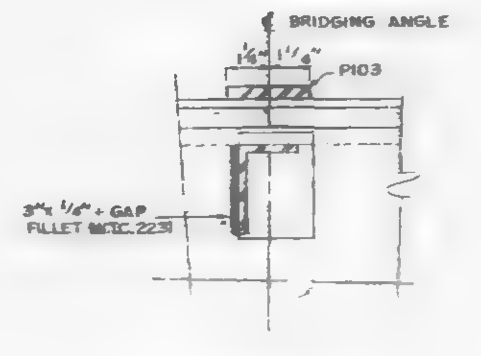
PLATE

IN CHARGE OF PROD. DEV.

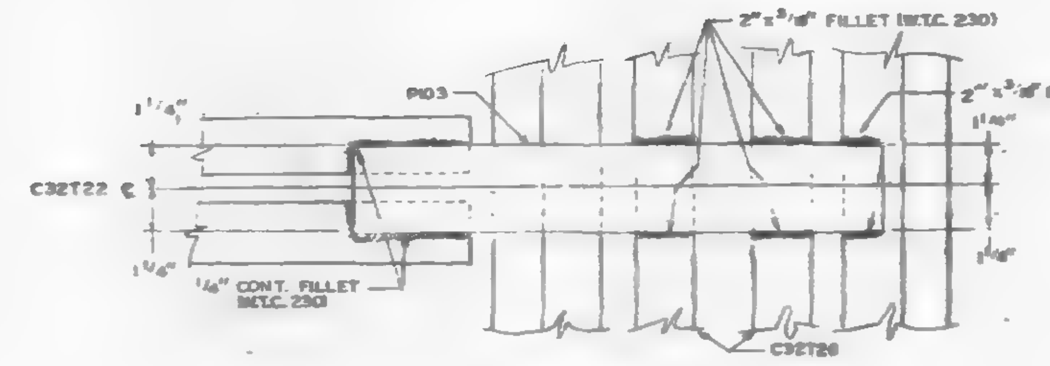
SHEET NO. CD 210



C32T22 TO 3" x 2" DETAIL (15-X) 3



SECTION A-A



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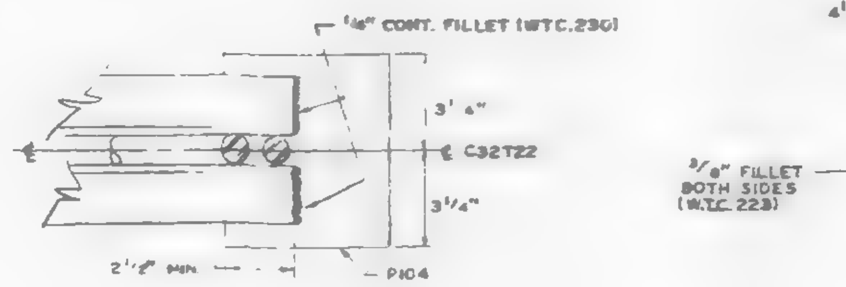
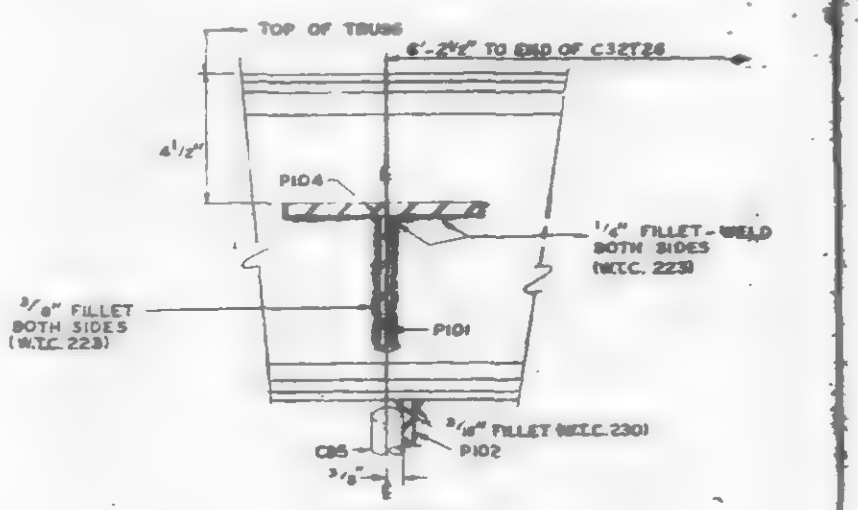


SECTION C-C



SECTION D-D

VOID

NOTES:
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL + GAP FILLET WELDS.

DETAIL "A"

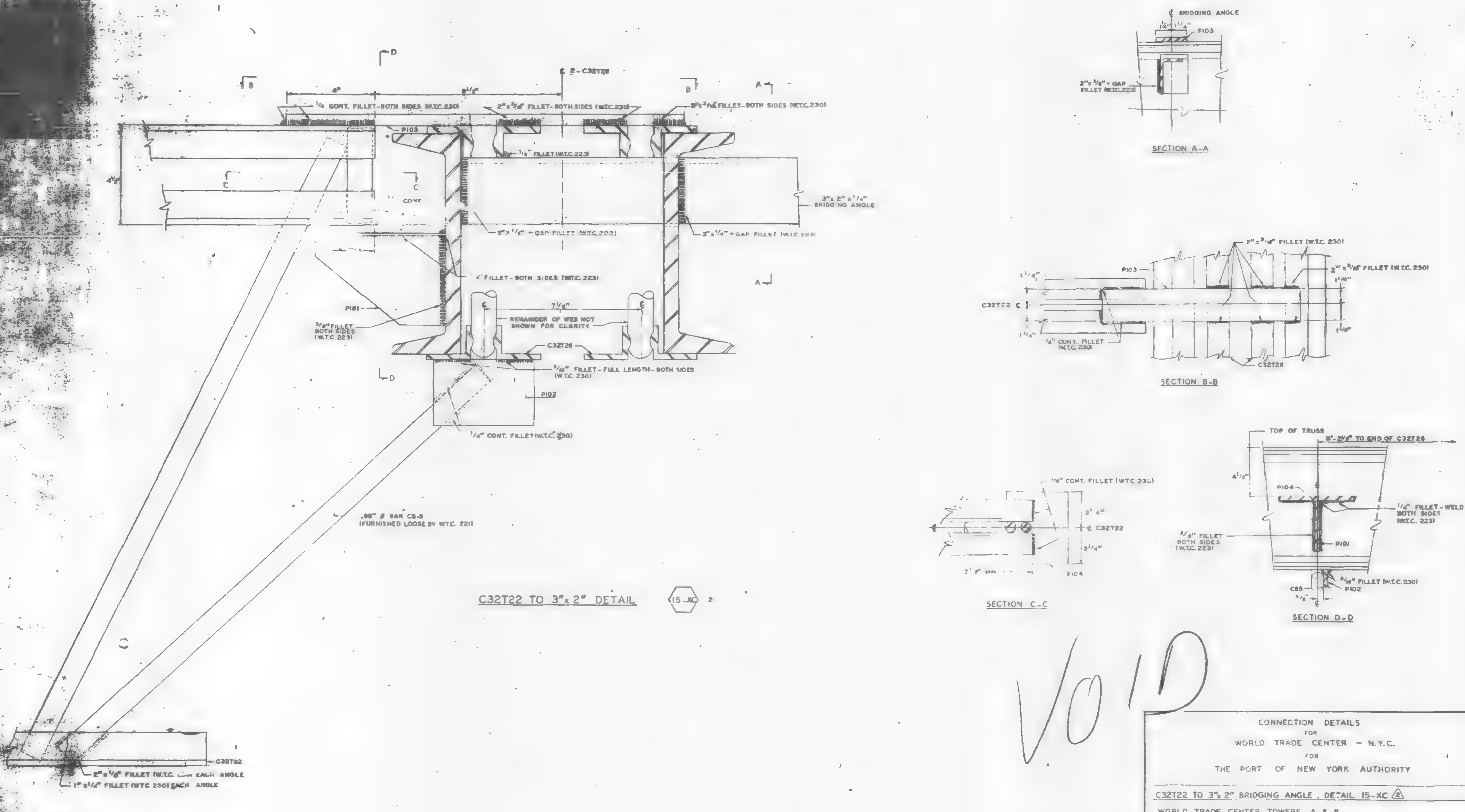
CONNECTION DETAILS
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T22 TO 3" x 2" BRIDGING ANGLE . DETAIL 15-X (2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO.		PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE	DRAWN BY: GDC DATE OCT. 4, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE	CHECKED BY: T.M.CHURA DATE OCT. 4, 1968	IN CHARGE OF PROD. DEV.
DETAILED FOR ... CARL ...	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 210

NO.	DATE	REVISION	BY
4	2-5-69	AS NOTED	G.D.C.
3	1-13-69	AS NOTED	G.D.C.
2	12-27-68	AS NOTED	G.D.C.
1	10-17-68	GENERAL	G.D.C.



NOTES:

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL + GAP FILLET WELDS.

DETAIL "A"

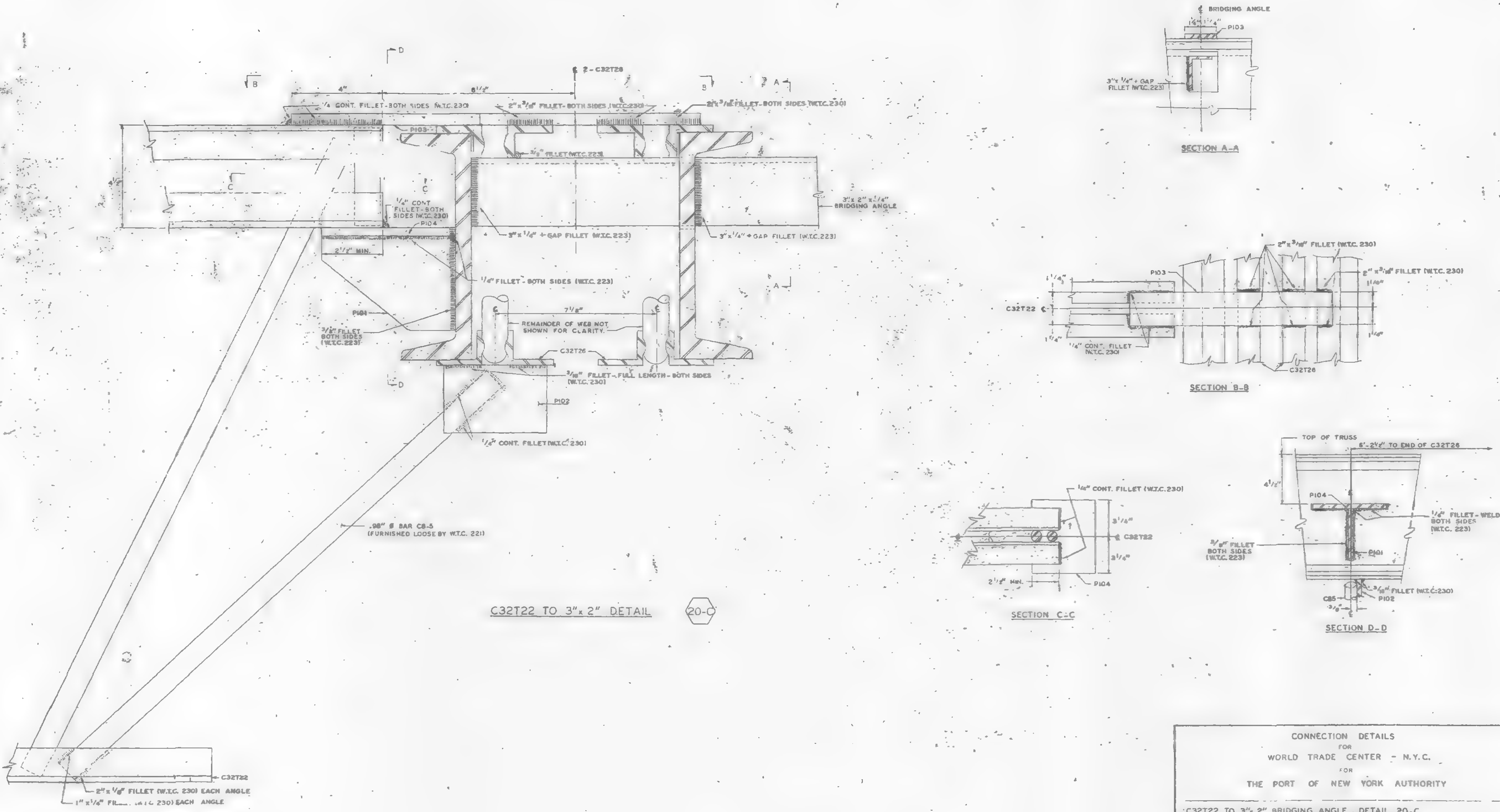
NO.	DATE	REVISION	BY
2	12-27-68	AS NOTED	G D C
1	10-17-68	GENERAL	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T22 TO 3" x 2" BRIDGING ANGLE, DETAIL 15-XC (2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY ___ FOR P.O.N.Y.A. DATE ___	DRAWN BY: gdc DATE OCT. 4, 1968	
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR DATE ___	CHECKED BY: T.M.CHURA DATE OCT. 4, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 210



NOTES:
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL + GAP FILLET WELDS.

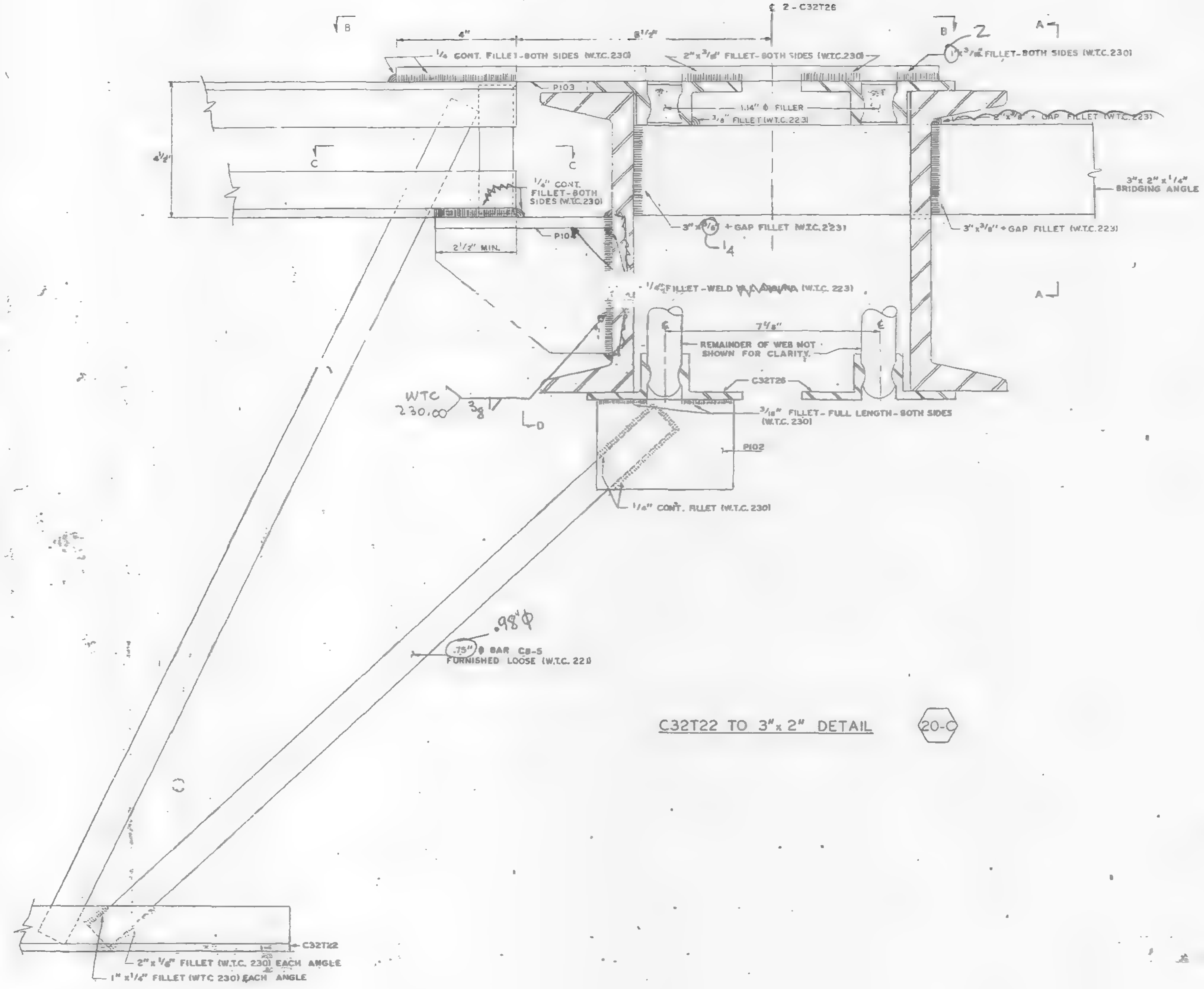
DETAIL "A"

NO.	DATE	REVISION	BY
1	10-17-68	GENERAL	G.D.C.

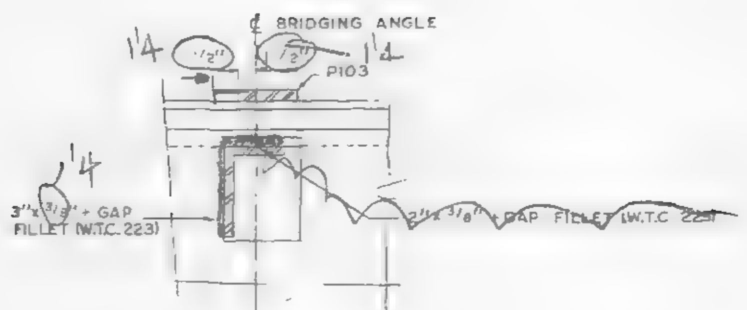
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T22 TO 3"x 2" BRIDGING ANGLE, DETAIL 20-C
WORLD TRADE CENTER TOWERS A & B

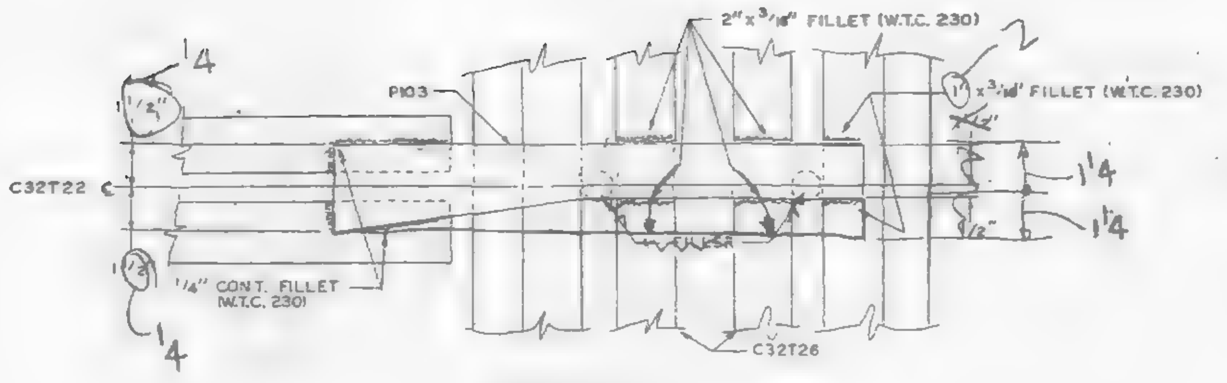
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO.
PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A. DATE 10/23/68
DRAWN BY gdc DATE OCT. 4, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE OCT. 4, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: CARL-WEBER
FABRICATION CONT. NO W.T.C. 221
SHEET NO CD 210



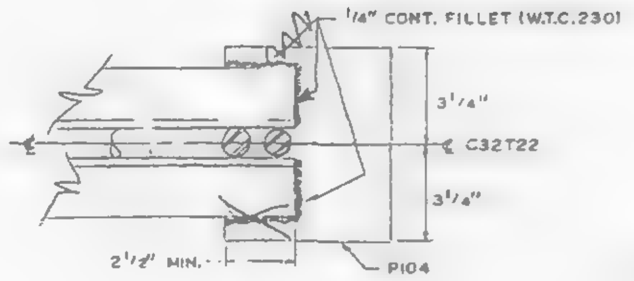
C32T22 TO 3"x 2" DETAIL (20-C)



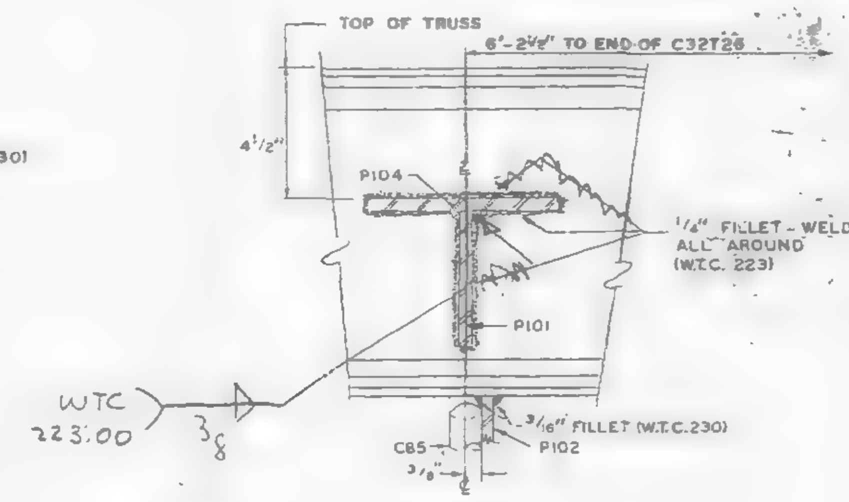
SECTION A-A



SECTION B-B



SECTION C-C

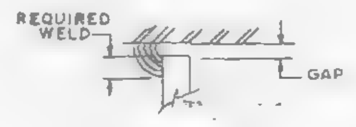


SECTION D-D

SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
APPROVED AS NOTED
10/15/68 SK

NOTES:

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE ASTM A36 STEEL.
SEE DETAIL "A" FOR ALL +GAP FILLET WELDS.

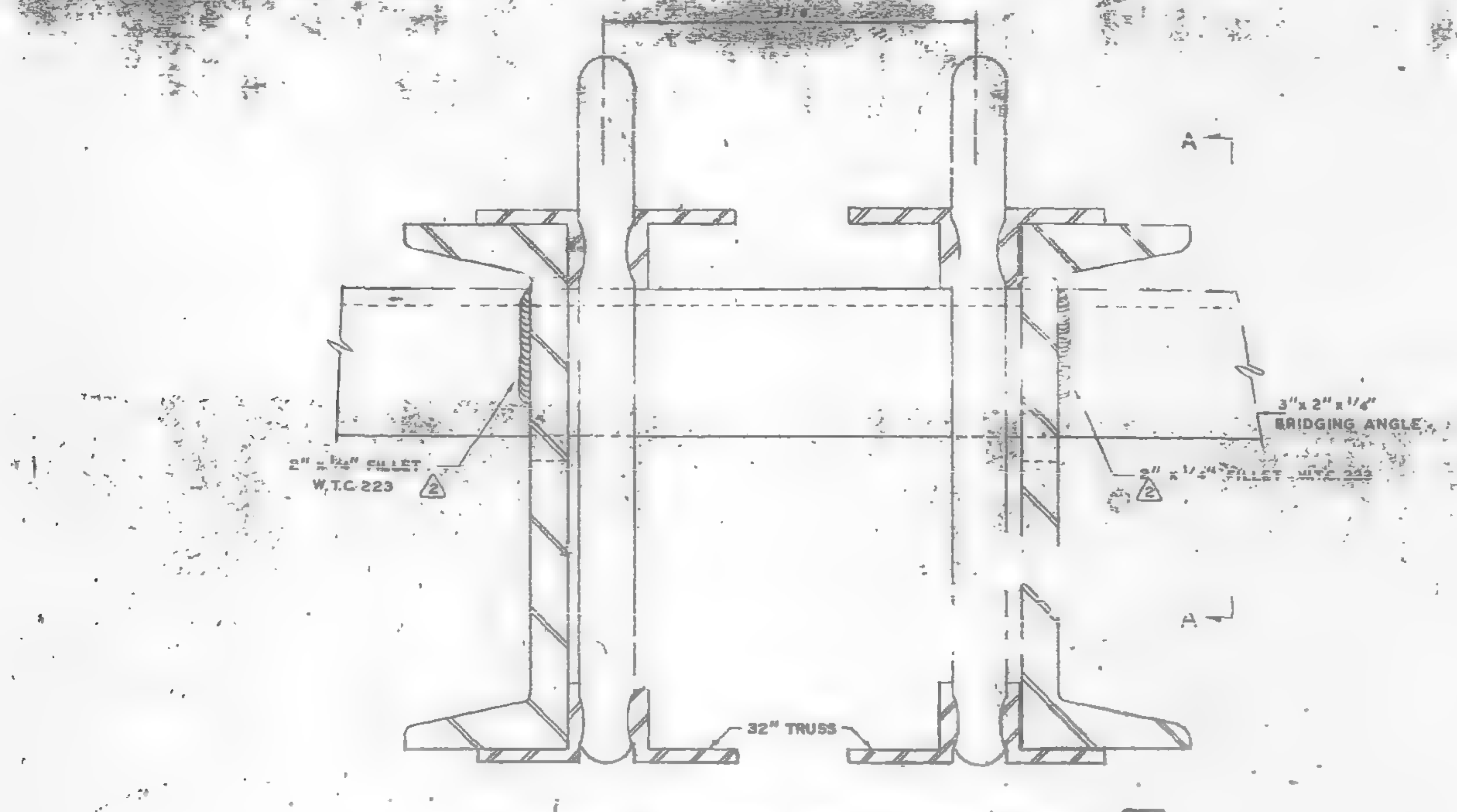


DETAIL "A"

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

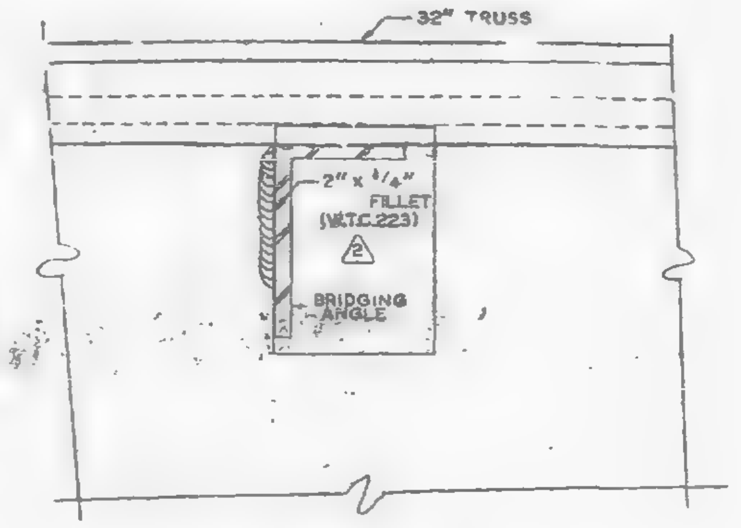
C32T22 TO 3"x 2" BRIDGING ANGLE, DETAIL 20-C
WORLD TRADE CENTER TOWERS A & B

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A — DATE	DRAWN BY: gdc DATE OCT. 4, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR — DATE	CHECKED BY: T.M CHURA DATE OCT. 4, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER	FABRICATION CONT NO W.T.C 221	SHEET NO CD 210

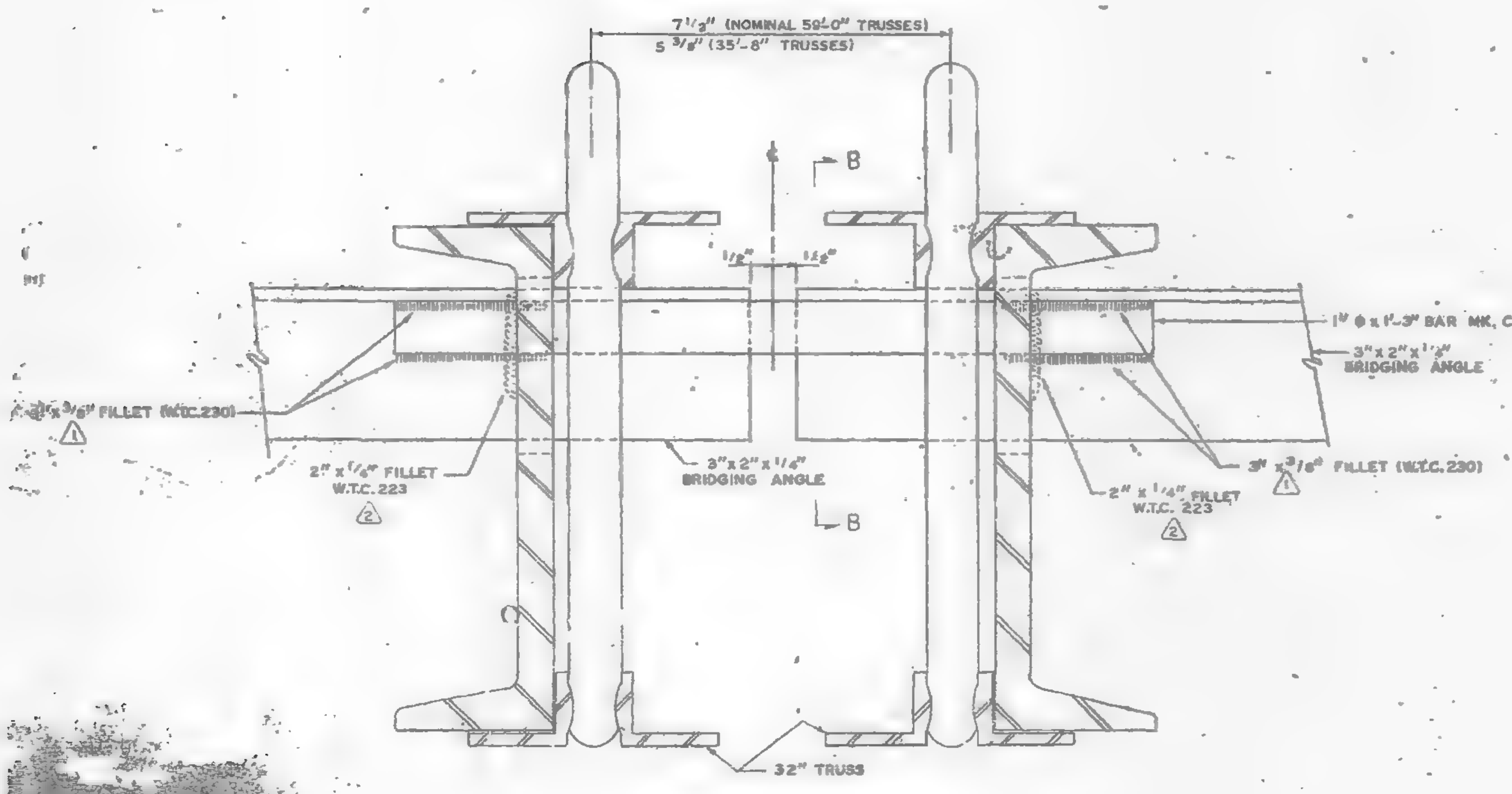


INTERIOR BRIDGING ANGLE CONNECTION (1-X)

PANELS: A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2 & FR2

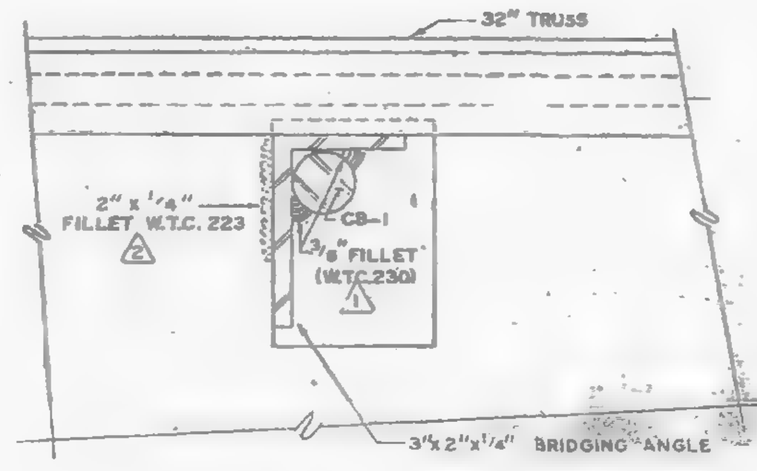


SECTION A-A



PANEL JOINT BRIDGING ANGLE CONNECTION (2-X)

PANELS: A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2, FR2, G2, GR2, H7, HR2 & J2.



SECTION B-B

LIST OF FLOOR CONNECTION IDENTIFICATIONS FOR FLOORS 2?, 59, & 92
TOWERS A & B

Connection Designation		Drawing No.
1-X	Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss in Panels A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2 and FR2	CD 211
1-XA	Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss in Panels G2, GR2, H7, HR2 and J2	CD [illegible]
1-XC	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Interior Panel Point	CD 220
2-X	Standard Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss at Panel Joints	CD 211
2-XC	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Panel Joints (Except Special Cases 2-X, 13XC, 14XC and 15XC)	CD 276
3-XA	Connection of A35 and AA21 with a 32T22 in F2 and FR2 Panels	CD 216
3-XB	Connection of AA22 and AA23 with a C32T22 in F2 and FR2 Panels	CD 21[illegible]
3-XC	Connection of AA9 Bridging Angles with C32T22 in F2 and FR2 Panels	CD 223
4-X	Connection of Interior Bridging Trusses with Extended End 32" Floor Trusses in Panels A2, B2, BR2, B7, BR7, C2, CR2, D2, DR2, D7, DR7, E2 and ER2	CD 215
4-XA	Connection of Interior Bridging Trusses with C32T21 in Panels F2 and FR2	CD [illegible]
4-XCA	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels A, B, BR, C and CR)	CD 220
4-XCB	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels G2, GR2, H2, H7, HR7, HR2, J2)	CD 220
5-X	Connection of 24T14A Bridging Trusses with C32T22 Trusses at Interior Panel Points (Panels F2 and FR2)	CD 218
5-XC	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels D, DR, E, ER, F, FR, G and GR except 5-X, 6-X, 6-XA Connections in Panel F and FR)	CD 220
6-X	Connection of Interior Bridging Trusses 24T7C or 24T7E with C32T22	CD 219
6-XA	Connection of 24T7D Bridging Trusses with C32T22 at Interior Panel Points	CD 219
7-X	Connection of the following Bridging Trusses at Panel Joints: 24T14A to 2[illegible] A, or 24T11B to 24T13D, 1[illegible], 16B or 16C	CD 212
7-XC	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints except Special Cases 8-XC, 9-XC, 10-XC, 11-XC	CD 220
8-XC	Connections of the following Bridging Trusses at Panel Joints: 24T[illegible] to 24T10 or 24T10C; 24T[illegible]A to 24T10A or 24T10D; 24T[illegible] to 24T10B or 24T10E	CD 221
9-X	Connection of 24T1[illegible] Bridging Trusses with 24T11B Bridging Truss at a Panel Joint	CD [illegible]13
9-XC	Connections of the following Bridging Trusses at Panel Joints: 24T[illegible] to 24T11A, or 24[illegible]A to 24T11C	CD 222
10-XC	Connections of the following Bridging Trusses at Panel Joints: 24T[illegible] to [illegible]T7C; 24T[illegible]A to 24T[illegible]; 24T[illegible] to 24T7E	CD 221
11-X	Connection of the [illegible]T15A Bridging Trusses at a 24T16B or 16C at a Panel Joint	CD 214
11-XC	Connection of 24T12 Bridging Truss with the 24T10, 10A B, C, 10D, or 10E Bridging at Panel Joints	CD 223
12-XC	Reserved	
13-XC	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 Trusses with Double C32T18 Trusses	CD 228
14-XC	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 Trusses Double C32T20 Trusses	CD 226
15-X	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 with a C32T22	CD 210
16-XC	Connection of 24T9 Bridging Truss at Double C32T26 Trusses with Double C32T19 Trusses	CD 227
17-XC	Connection of 24T9A Bridging Truss at Double C32T26 Trusses with Double C32T21 Trusses	CD 225
18-XC	Connection of 3" x 2" x 1/4" Bridging Angle with the Double C32T18 Trusses in Panel E and ER at Second Line of Bridging from Core End	CD 223
19-XC	Connection of 3" x 2" x 1/4" Bridging Angle with the Double C32T15 Trusses at the Panel Joint of Panels E to Panel D or Panel ER to Panel DR at Second Line of Bridging from Core End	CD 223

NO.	DATE	REVISION	BY
2	3-?-69	AS NOTED	G.D.C.
1	2-5-69	AS NOTED	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-X & 2-X

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO.

PLATE

APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. DATE 3/13/69

DRAWN BY: gdc DATE OCT. 8, 1968

APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE

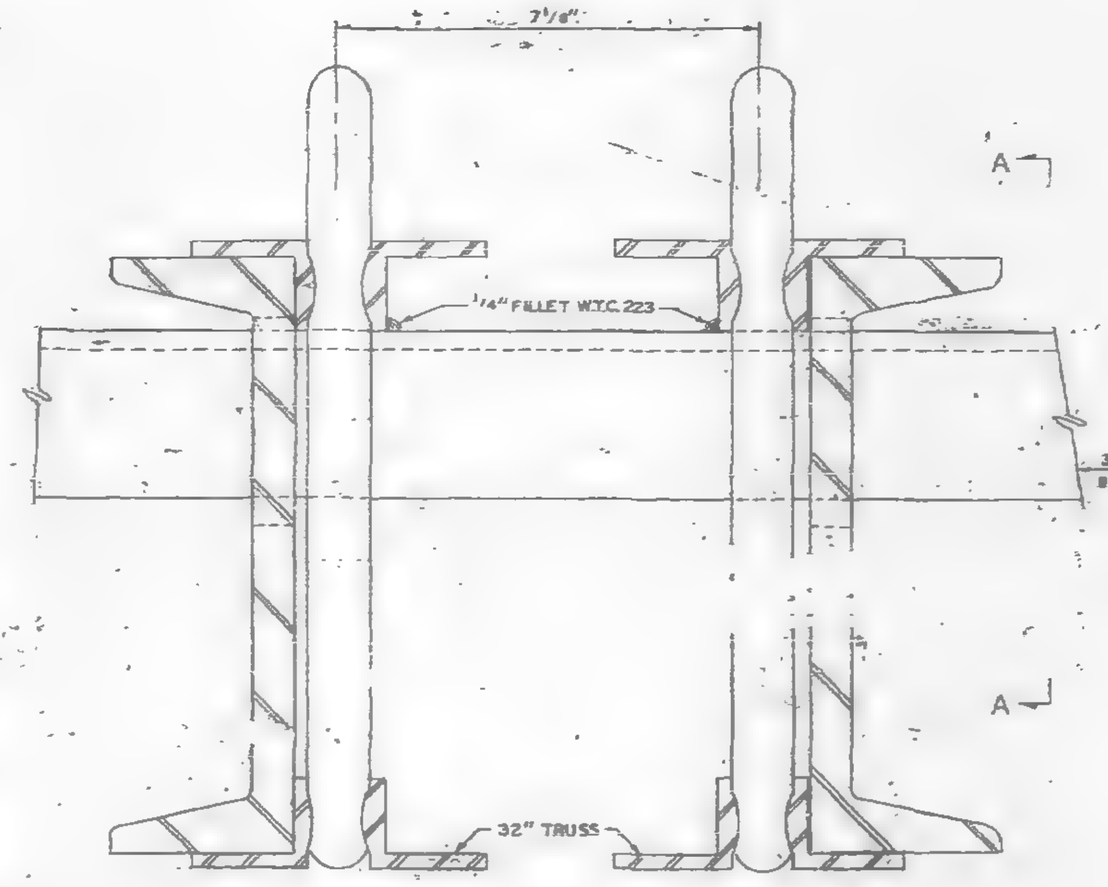
CHECKED BY: T.M. CHURA DATE OCT. 8, 1968

IN CHARGE OF PROD. DEV.

DETAILED BY: A. CARL WEBER

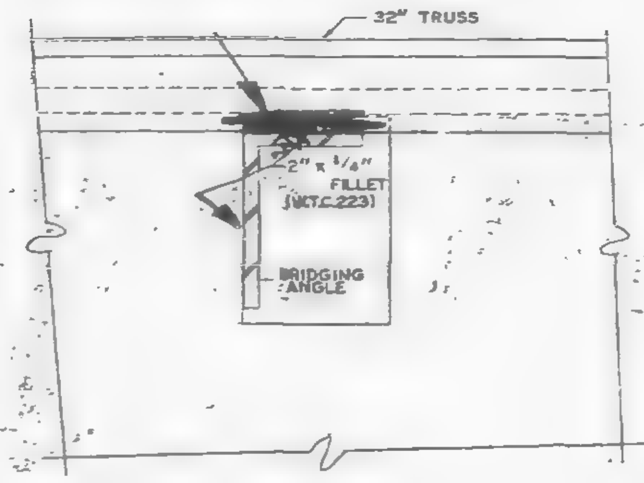
FABRICATION CONT. NO W.T.C. 221

SHEET NO. CD 211

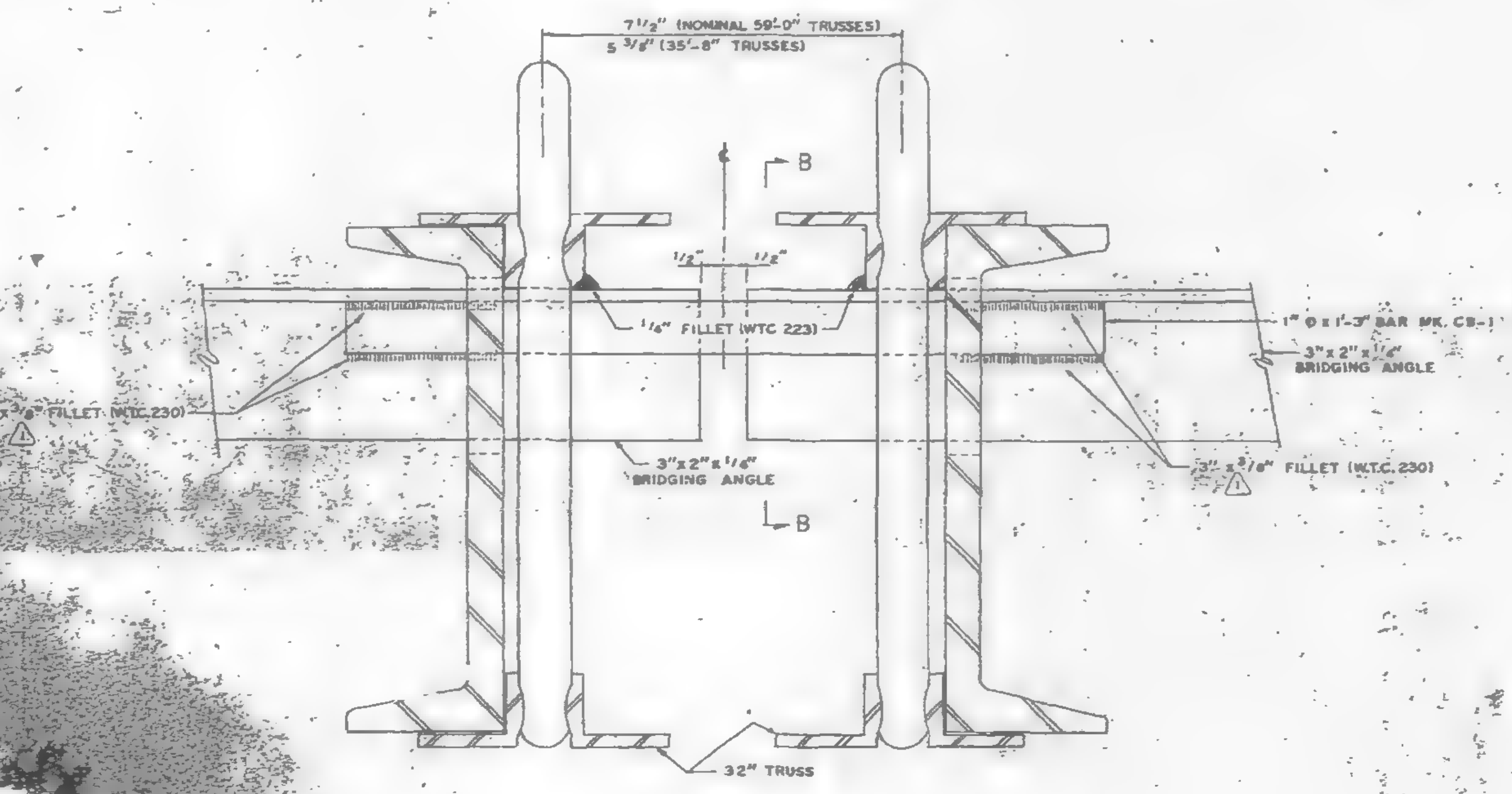


INTERIOR BRIDGING ANGLE CONNECTION (1-X)

PANELS: A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2 & FR2

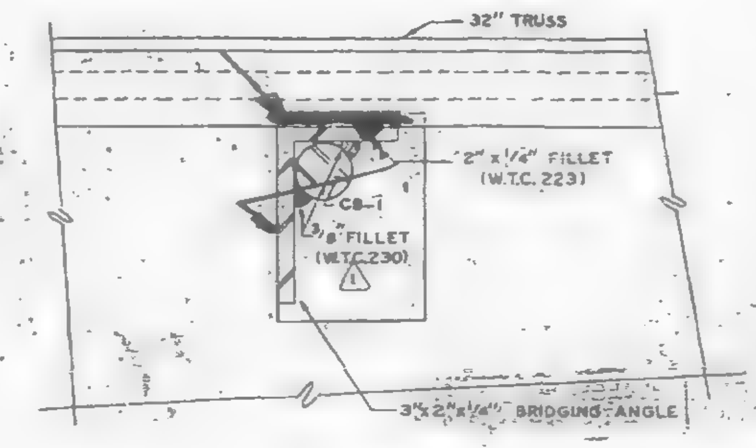


SECTION A-A



PANEL JOINT BRIDGING ANGLE CONNECTION (2-X)

PANELS: A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2, FR2, G2, GR2, H7, HR2 & J2.



SECTION B-B

LIST OF FLOOR CONNECTION INDENTIFICATIONS FOR FLOORS 25, 59, & 92
TOWERS A & B

Connection Designation		Drawing No.
1-X	Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss in Panels A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2 and FR2	CD 211
1-XA	Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss in Panels G2, GR2, H7, HR2 and J2	CD 217
1-XC	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Interior Panel Points	CD 220
2-X	Standard Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss at Panel Joints	CD 211
2-XC	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Panel Joints (Except Special Cases 2-X, 13XC, 14XC and 15XC)	CD 220
3-XA	Connection of A35 and AA21 with a 32T22 in F2 and FR2 Panels	CD 218
3-XB	Connection of AA22 and AA23 with a C32T22 in F2 and FR2 Panels	CD 217
3-XC	Connection of AA9 Bridging Angles with C32T22 in F2 and FR2 Panels	CD 223
4-X	Connection of Interior Bridging Trusses with Extended End 32" Floor Trusses in Panels A2, B2, BR2, B7, BR7, C2, CR2, D2, DR2, D7, DR7, E2 and ER2	CD 215
4-XA	Connection of Interior Bridging Trusses with C32T21 in Panels F2 and FR2	CD 216
4-XCA	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels A, B, BR, C and CR)	CD 220
4-XCB	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels G2, GR2, H2, H7, HR7, HR2, J2)	CD 220
5-X	Connection of 24T14A Bridging Trusses with C32T22 Trusses at Interior Panel Points (Panels F2 and FR2)	CD 216
5-XC	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels D, DR, E, ER, F, FR, G and GR except 5-X, 6-X, 6-XA Connections in Panel F and FR)	CD 220
6-X	Connection of Interior Bridging Trusses 24T7C or 24T7E with C32T22	CD 219
6-XA	Connection of 24T7D Bridging Trusses with C32T22 at Interior Panel Points	CD 219
7-X	Connection of the following Bridging Trusses at Panel Joints: 24T14A to 24T15A, or 24T11B to 24T13D, 13, 16B or 16C	CD 212
7-XC	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints except Special Cases 8-XC, 9-XC, 10-XC, 11-XC	CD 220
8-XC	Connections of the following Bridging Trusses at Panel Joints: 24T8 to 24T10 or 24T10C 24T8A to 24T10A or 24T10D 24T8B to 24T10B or 24T10E	CD 221
9-X	Connection of 24T13D Bridging Trusses with 24T11B Bridging Truss at a Panel Joint	CD 213
9-XC	Connections of the following Bridging Trusses at Panel Joints: 24T9 to 24T11A, or 24T9A to 24T11C	CD 222
10-XC	Connections of the following Bridging Trusses at Panel Joints 24T8 to 24T7C 24T8A to 24T7D 24T8B to 24T7E	CD 221
11-X	Connection of the 24T15A Bridging Trusses at a 24T16B or 16C at a Panel Joint	CD 214
11-XC	Connection of 24T12 Bridging Truss with the 24T10, 10A, 10B, 10D, or 10E Bridging at Panel Joints 10C	CD 223
12-XC	Reserved	
13-XC	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T25 Trusses with Double C32T18 Trusses	CD 228
14-XC	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T2_ Trusses Double C32T20 Trusses	CD 226
15-X	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 with a C32T22	CD 210
16-XC	Connection of 24T9 Bridging Truss at Double C32T25 Trusses with Double C32T19 Trusses	CD 227
17-XC	Connection of 24T9A Bridging Truss at Double C32T26 Trusses with Double C32T21 Trusses	CD 225
18-XC	Connection of 3" x 2" x 1/4" Bridging Angle with the Double C32T18 Trusses in Panel E and ER at Second Line of Bridging from Core End	CD 223
19-XC	Connection of 3" x 2" x 1/4" Bridging Angle with the Double C32T15 Trusses at the Panel Joint of Panels E to Panel D or Panel ER to Panel DR at Second Line of Bridging from Core End	CD 223

SKILLING - HELLE
CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
☐ APPROVED
☒ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
Date 2/25/69 By SK

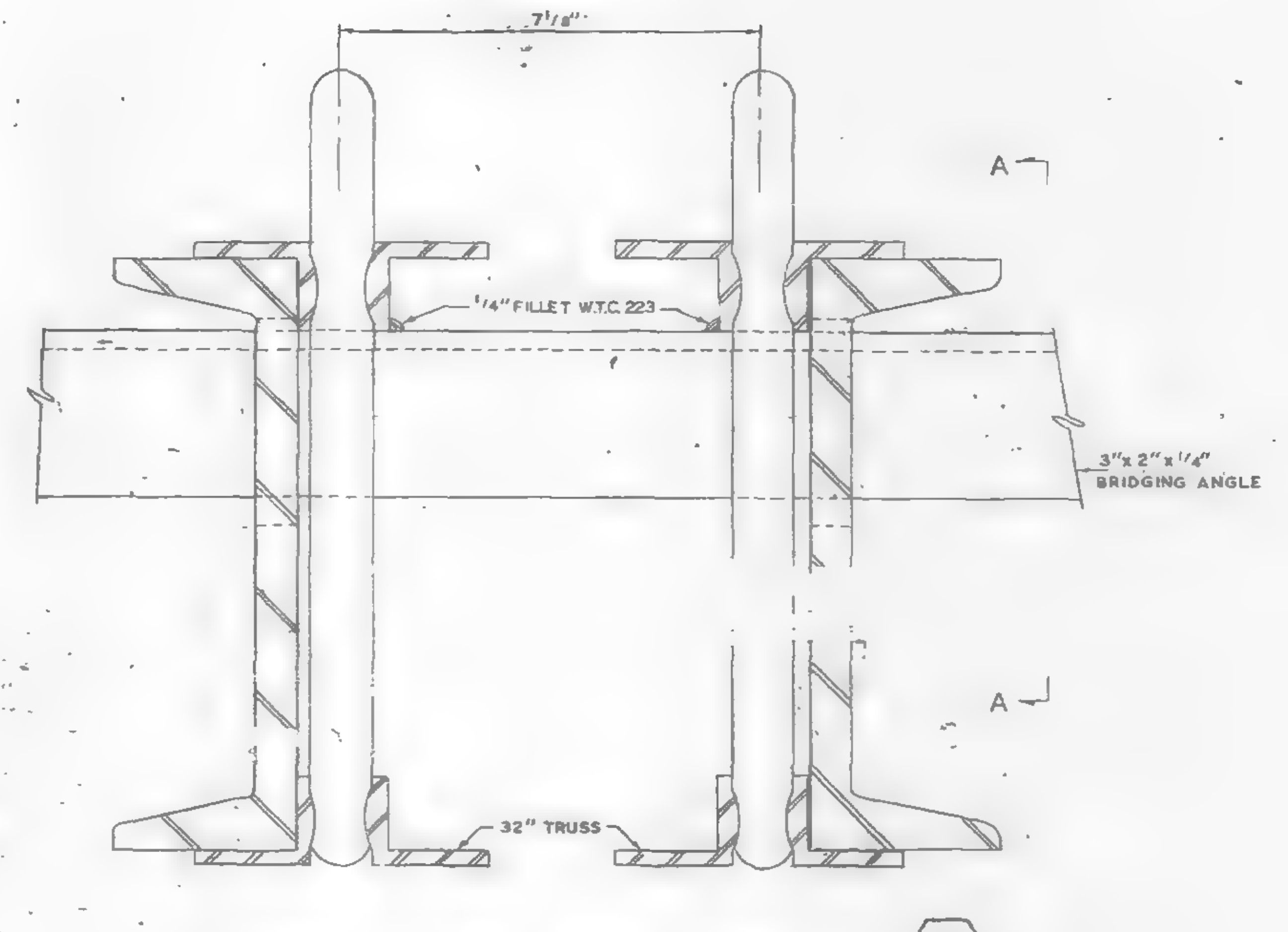
CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 1-X & 2-X

FABRICATION BY: LACLEDE STEEL COMPANY

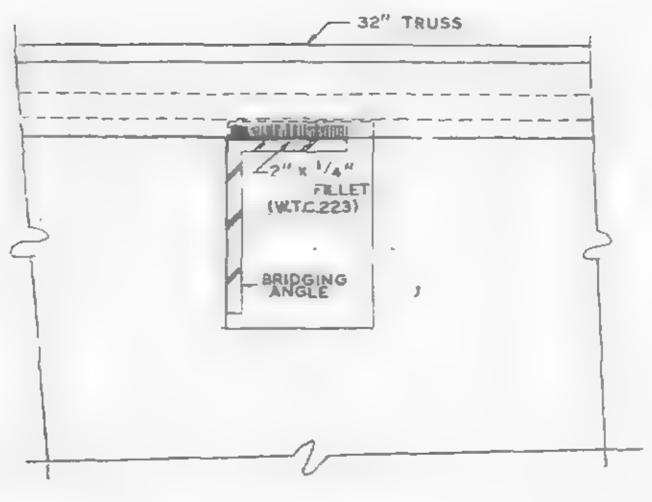
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.		PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A.	DATE	DRAWN BY: gdc DATE OCT. 8, 1968		
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE OCT. 8, 1968		IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A. CARL WEBER		FABRICATION CONT. NO. W.T.C. 221		SHEET NO. CD 211

NO.	DATE	REVISION	BY
1	2-5-69	AS NOTED	G.D.C.

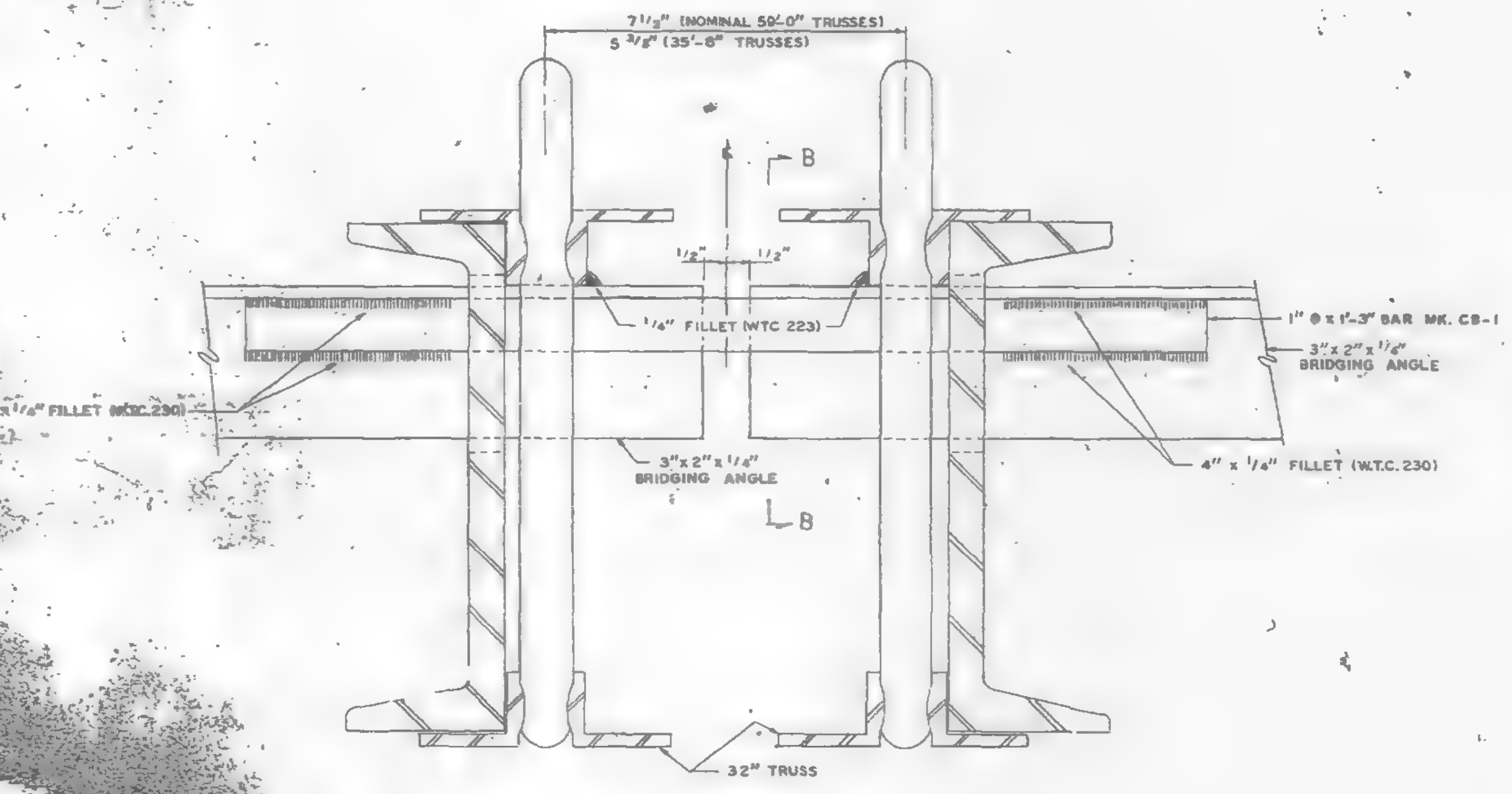


INTERIOR BRIDGING ANGLE CONNECTION (1-X)

PANELS: A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2 & FR2

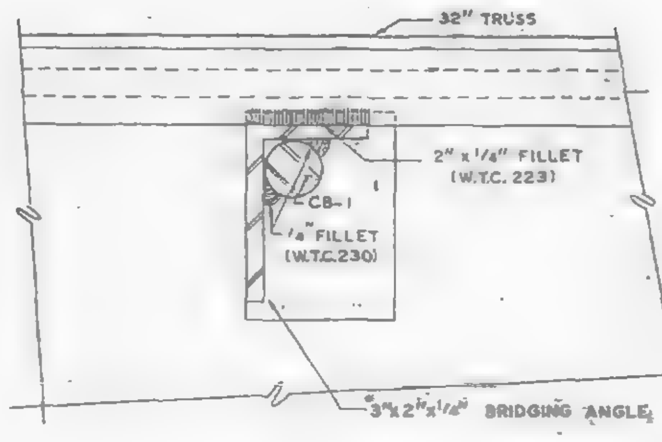


SECTION A-A



PANEL JOINT BRIDGING ANGLE CONNECTION (2-X)

PANELS: A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2, FR2, G2, GR2, H7, HR2 & J2.



SECTION B-B

LIST OF FLOOR CONNECTION INDENTIFICATIONS FOR FLOORS 25, 59, & 92

TOWERS A & B

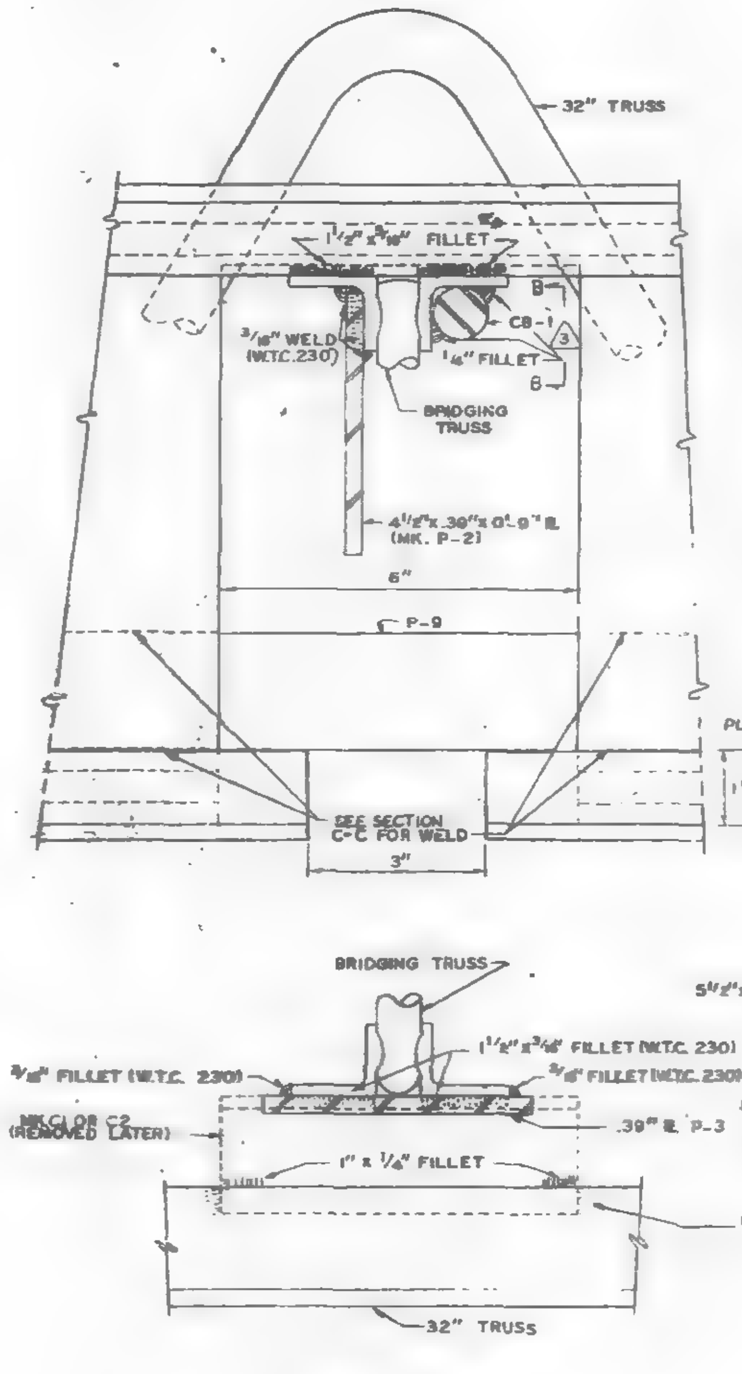
Connection Designation		Drawing No.
1-X	Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss in Panels A2, B2, BR2, C2, CR2, D2, DR2, E2, ER2, F2 and FR2	CD 211
1-XA	Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss in Panels G2, GR2, H7, HR2 and J2	CD 217
1-XC	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Interior Panel Joints	CD 220
2-X	Standard Connection of 3" x 2" x 1/4" Bridging Angles with Extended End 32" Truss at Panel Joints	CD 211
2-XC	Connection of 3" x 2" x 1/4" Bridging Angles with C32 Trusses at Panel Joints (Except Special Cases 2-X, 13XC, 14XC and 15XC)	CD 220
3-XA	Connection of A35 and AA21 with a 32T22 in F2 and FR2 Panels	CD 218
3-XB	Connection of AA22 and AA23 with a C32T22 in F2 and FR2 Panels	CD 217
3-XC	Connection of AA9 Bridging Angles with C32T22 in F2 and FR2 Panels	CD 223
4-X	Connection of Interior Bridging Trusses with Extended End 32" Floor Trusses in Panels A2, B2, BR2, B7, BR7, C2, CR2, D2, DR2, D7, DR7, E2 and ER2	CD 215
4-XA	Connection of Interior Bridging Trusses with C32T21 in Panels F2 and FR2	CD 216
4-XCA	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Joints (Panels A, B, BR C and CR)	CD 220
4-XCB	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels G2, GR2, H2, H7, HR7, HR2, J2)	CD 220
5-X	Connection of 24T14A Bridging Trusses with C32T22 Trusses at Interior Panel Points (Panels F2 and FR2)	CD 218
5-XC	Connection of 24T Bridging Trusses with C32 Trusses at Interior Panel Points (Panels D, DR, E, ER, F, FR, G and GR except 5-X, 6-X, 6-XA Connections in Panel F and FR)	CD 220
6-X	Connection of Interior Bridging Trusses 24T7C or 24T7E with C32T22	CD 219
6-XA	Connection of 24T7D Bridging Trusses with C32T22 at Interior Panel Points	CD 219
7-X	Connection of the following Bridging Trusses at Panel Joints: 24T14A to 2415A, or 24T11B to 24T13D, 13, 16B or 16C	CD 212
7-XC	Connection of 24T Bridging Trusses with C32 Trusses at Panel Joints except Special Cases 8-XC, 9-XC, 10-XC, 11-XC	CD 220
8-XC	Connections of the following Bridging Trusses at Panel Joints: 24T8 to 24T10 or 24T10C 24T8A to 24T10A or 24T10D 24T6B to 24T10B or 24T10E	CD 221
9-X	Connection of 24T13D Bridging Trusses with 24T11B Bridging Truss at a Panel Joint	CD 213
9-XC	Connections of the following Bridging Trusses at Panel Joints: 24T9 to 24T11A, or 249A to 2411C	CD 222
10-XC	Connections of the following Bridging Trusses at Panel Joints 24T8 to 24T7C 24T8A to 24T7D 24T8 to 24T7E	CD 221
11-X	Connection of the 24T15A Bridging Trusses at a 24T16B or 16C at a Panel Joint	CD 214
11-XC	Connection of 24T12 Bridging Truss with the 24T10, 10A, 10B, 10D, or 10E Bridging at Panel Joints	CD 223
12-XC	Reserved	
13-XC	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 Trusses with Double C32T18 Trusses	CD 228
14-XC	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 Trusses Double C32T20 Trusses	CD 226
15-X	Connection of 3" x 2" x 1/4" Bridging Angle at Double C32T26 with a C32T22	CD 210
16-XC	Connection of 24T9 Bridging Truss at Double C32T26 Trusses with Double C32T19 Trusses	CD 227
17-XC	Connection of 24T9A Bridging Truss at Double C32T[illegible] Trusses with Double C32T21 Trusses	CD 225
18-XC	Connection of 3" x 2" x 1/4" Bridging Angle with the Double C32T18 Trusses in Panel E and ER at Second Line of Bridging from Core End	CD 223
19-XC	Connection of 3" x 2" x 1/4" Bridging Angle with the Double C32T15 Trusses at the Panel Joint of Panels E to Panel D or Panel ER to Panel DR at Second Line of Bridging from Core End	CD 223

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

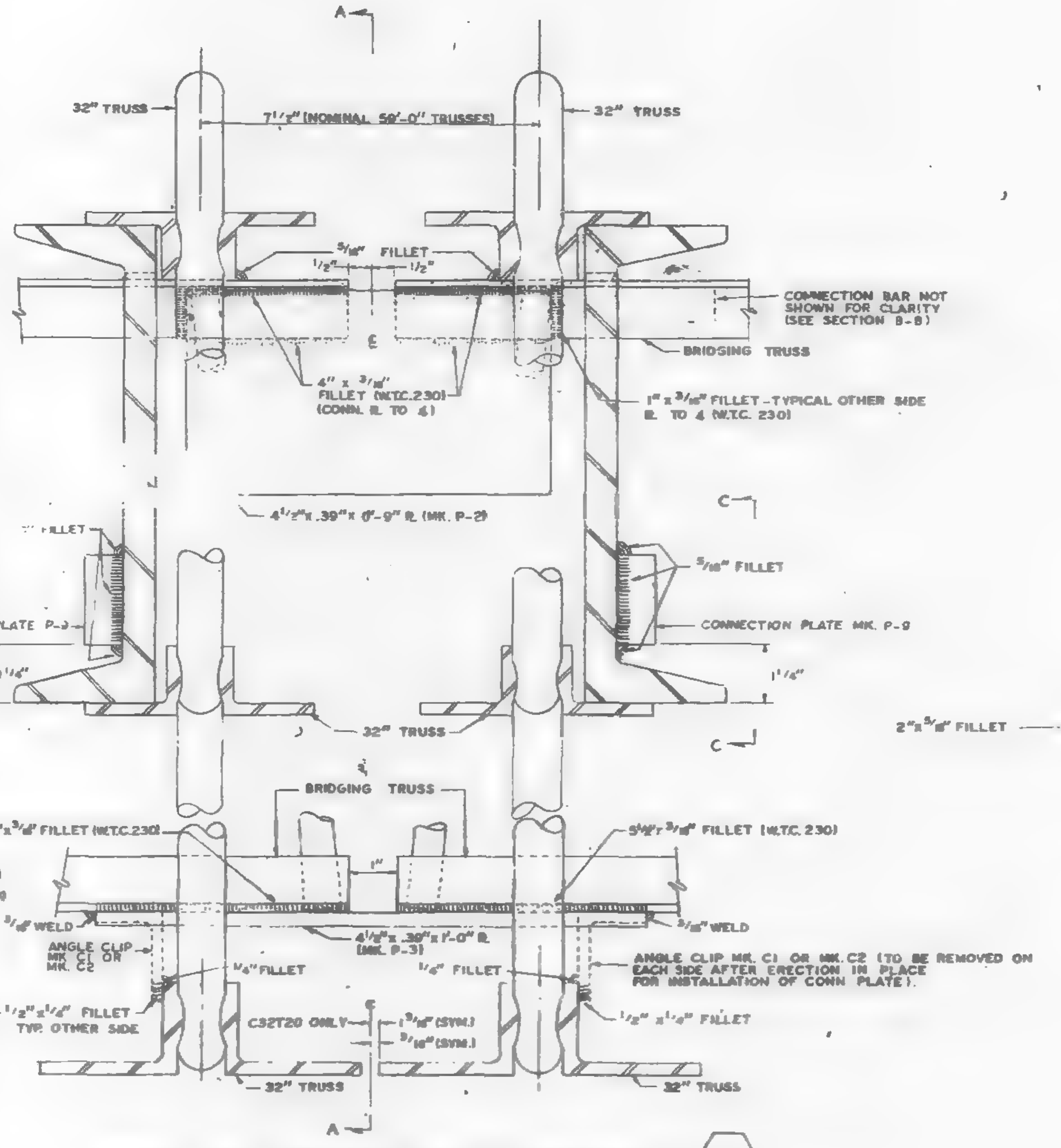
STANDARD CONNECTION DETAILS 1-X & 2-X

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY: gdc DATE OCT. 8, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR LACLEDE STEEL CO.	DATE	CHECKED BY: T.M.CHURA DATE OCT. 8, 1968	IN CHARGE OF PROD. DEV. I
DETAILED BY: A. CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 211

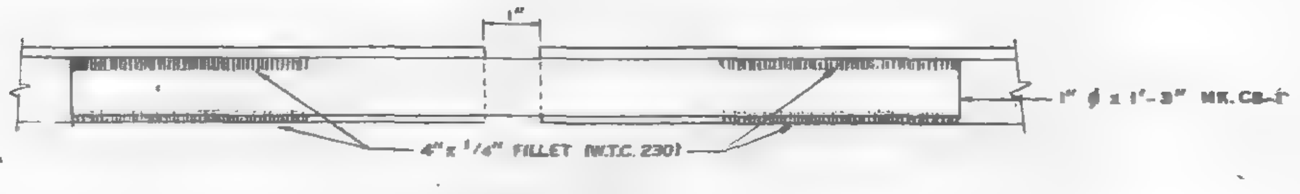


SECTION A-A

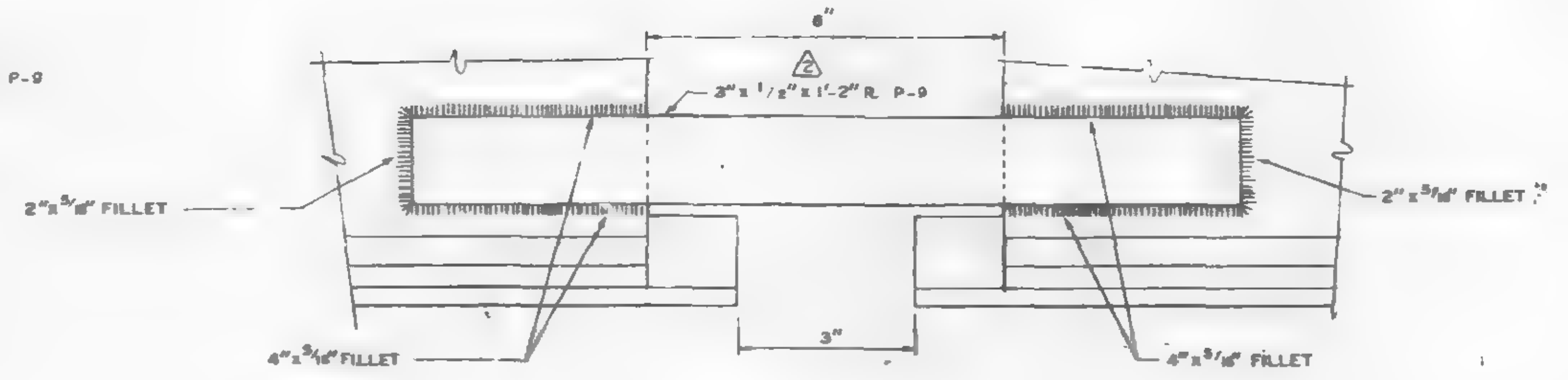


PANEL JOINT BRIDGING TRUSS CONNECTION (7-X)

24T14A TO 24T15A
24T11B TO 24T13D
24T11B TO 24T13
24T11B TO 24T18B
24T11B TO 24T18C



SECTION B-B



SECTION C-C

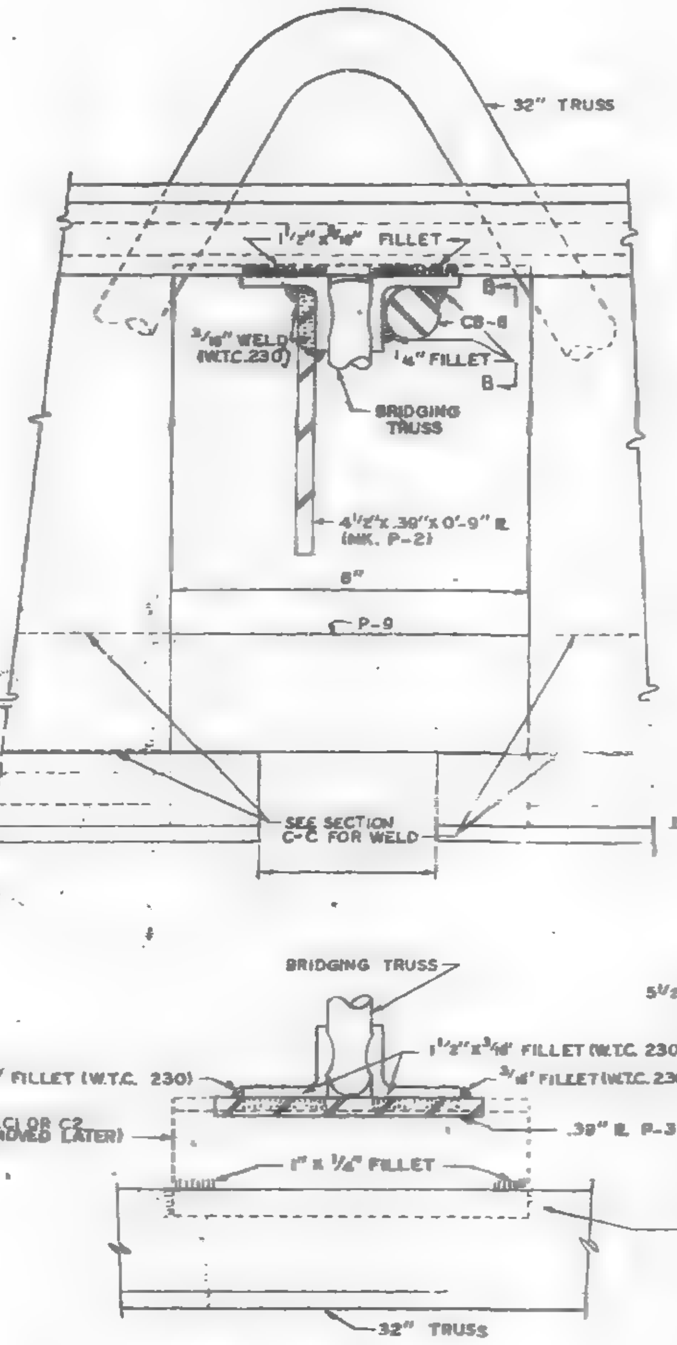
UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES & ℄ SPLICE BARS TO BE ASTM A36 STEEL.
SEE SHEET CD-211 FOR FLOOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

CONNECTION DETAILS
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

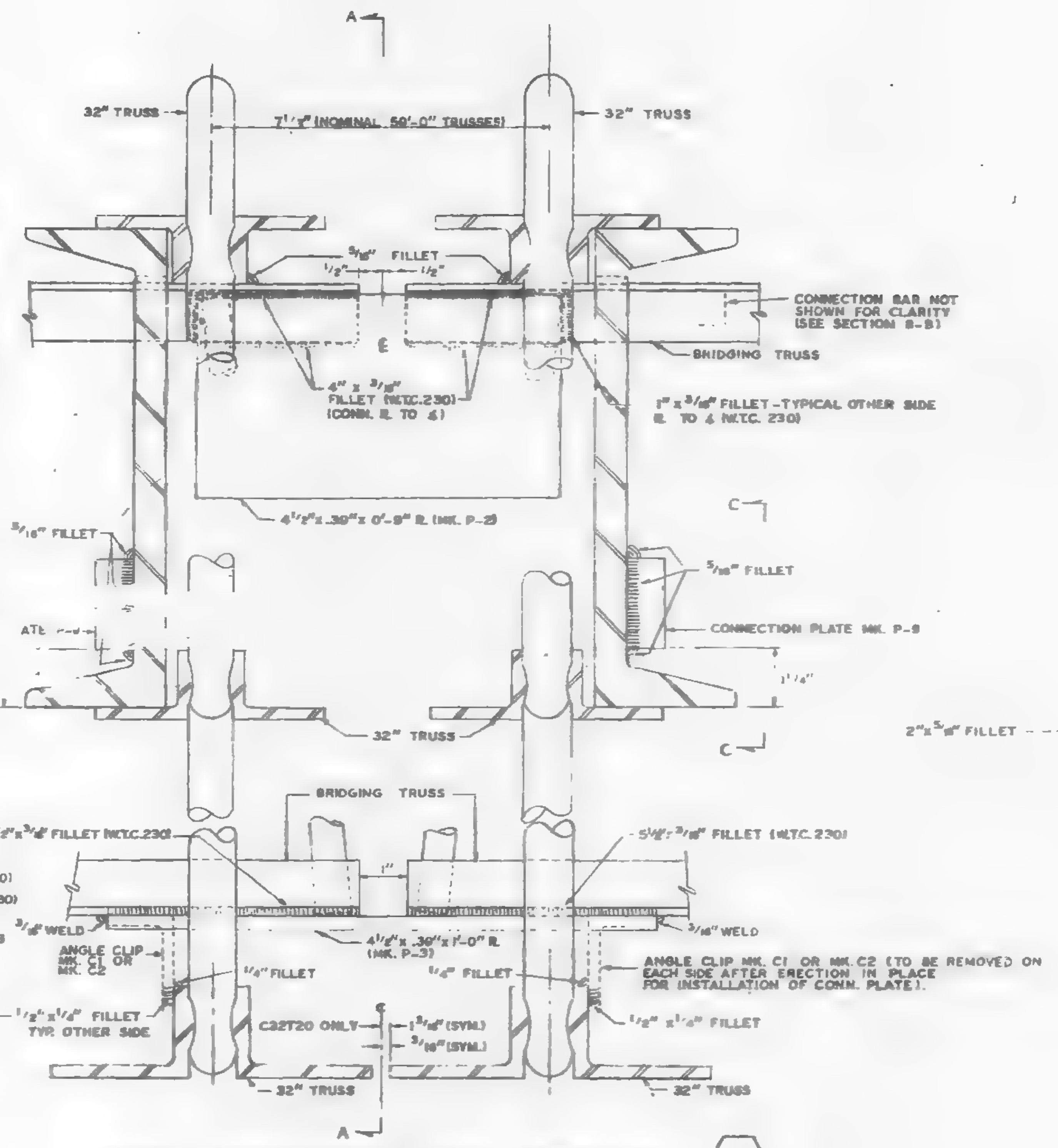
SPECIAL CONNECTION 7-X FOR FLOORS 25, 59 & 92.

NO.	DATE	REVISION	BY
3	1-9-69	AS NOTED	G.D.C.
2	11-6-68	P-9 PL SIZE	G.D.C.
1	10-22-68	GENERAL	G.D.C.

FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY: gd DATE OCT. 10, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE OCT. 10, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: LACLEDE STEEL CO.		FABRICATION CONT. NO: W.T.C. 221	SHEET NO. CD 212

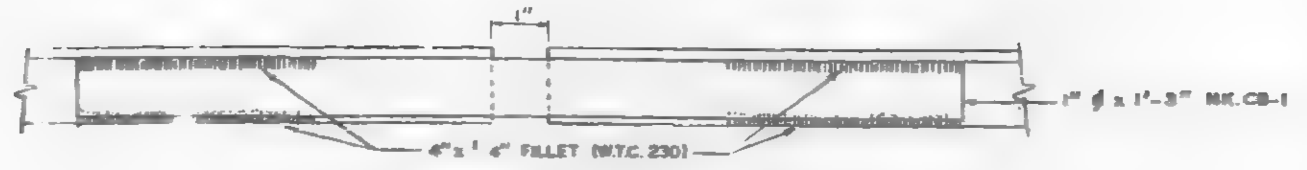


SECTION A-A

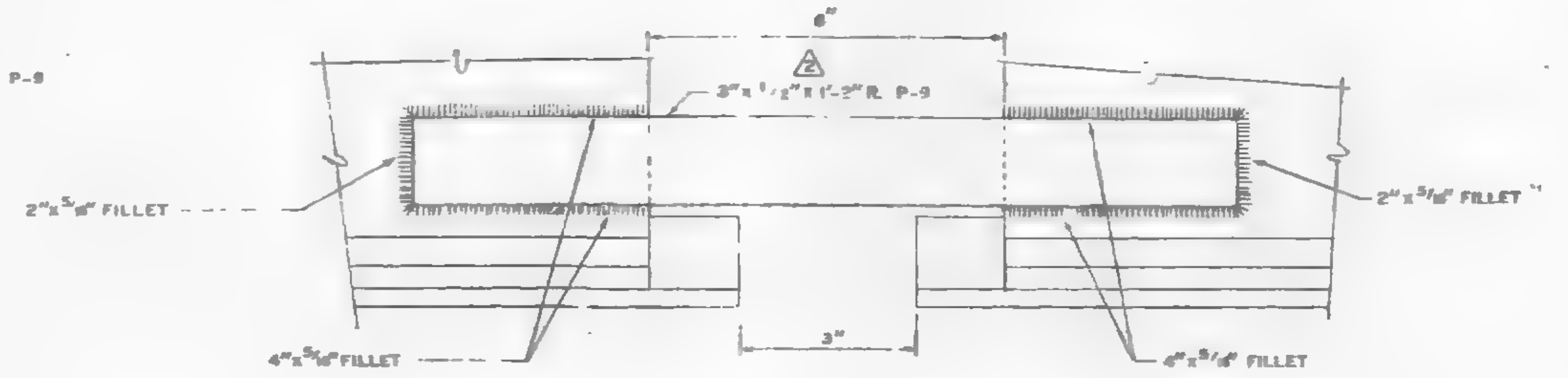


PANEL JOINT BRIDGING TRUSS CONNECTION (7-X)

24T14A TO 24T15A
24T11B TO 24T13D
24T11B TO 24T13
24T11B TO 24T18B
24T11B TO 24T18C



SECTION B-B



SECTION C-C

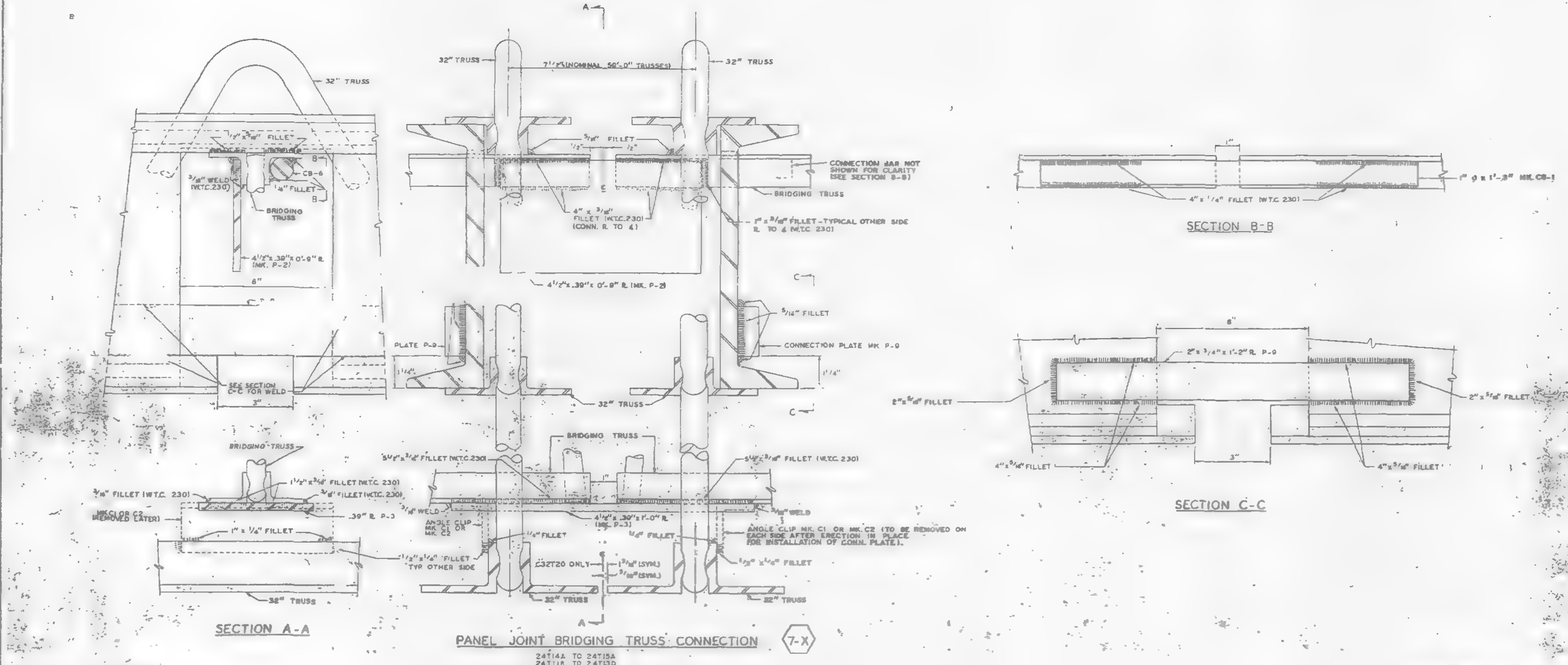
UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES & ∅ SPLICE BARS TO BE ASTM A36 STEEL.
SEE SHEET CD-211 FOR FLOOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

SPECIAL CONNECTION 7-X FOR FLOORS 25, 59 & 92.

NO.	DATE	REVISION	BY
2	11-6-68	P-9 R SIZE	G.D.C.
1	10-22-68	GENERAL	G.D.C.

FABRICATION BY LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 11/15/68	DRAWN BY: gd DATE OCT. 10, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE OCT. 10, 1968	[illegible] PROD. [illegible]
LACLEDE STEEL CO DETAILED BY A. CARL WEBER		FABRICATION DWG. NO. W.T.C. 221	SHEET NO. CD 212



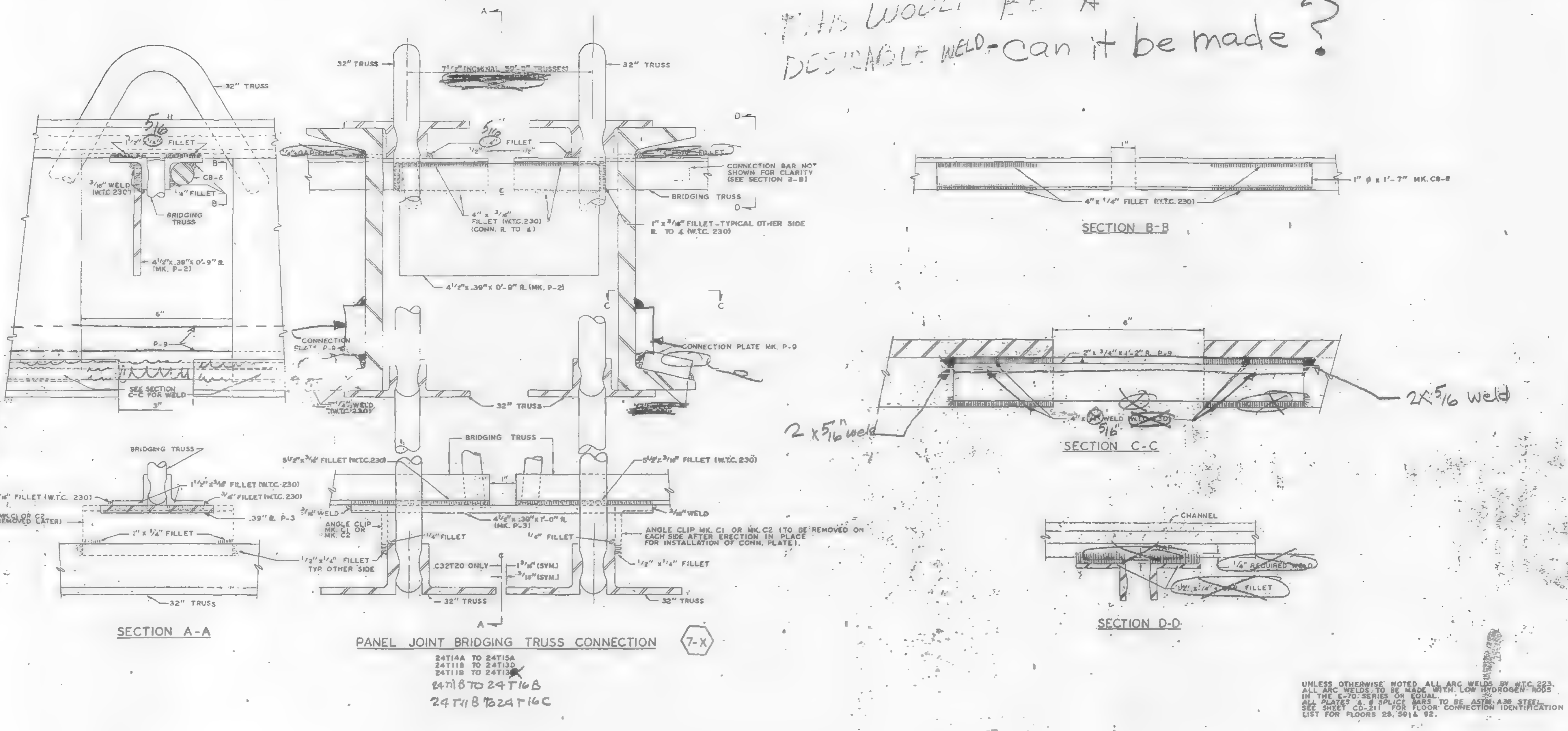
UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
ALL PLATES & SPLICE BARS TO BE ASTM A36 STEEL.
SEE SHEET CD-211 FOR FLOOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

NO.	DATE	REVISION	BY
1	10-22-68	GENERAL	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

SPECIAL CONNECTION 7-X FOR FLOORS 25, 59 & 92.

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO.
PLATE
APPROVED FOR FABRICATION BY: White FOR P.O.N.Y.A. DATE 10/20/68
DRAWN BY: DATE OCT. 10, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE OCT. 10, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. CD 2.2



UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES & ∅ SPLICE BARS TO BE ASTM-A36 STEEL.
SEE SHEET CD-211 FOR FLOOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

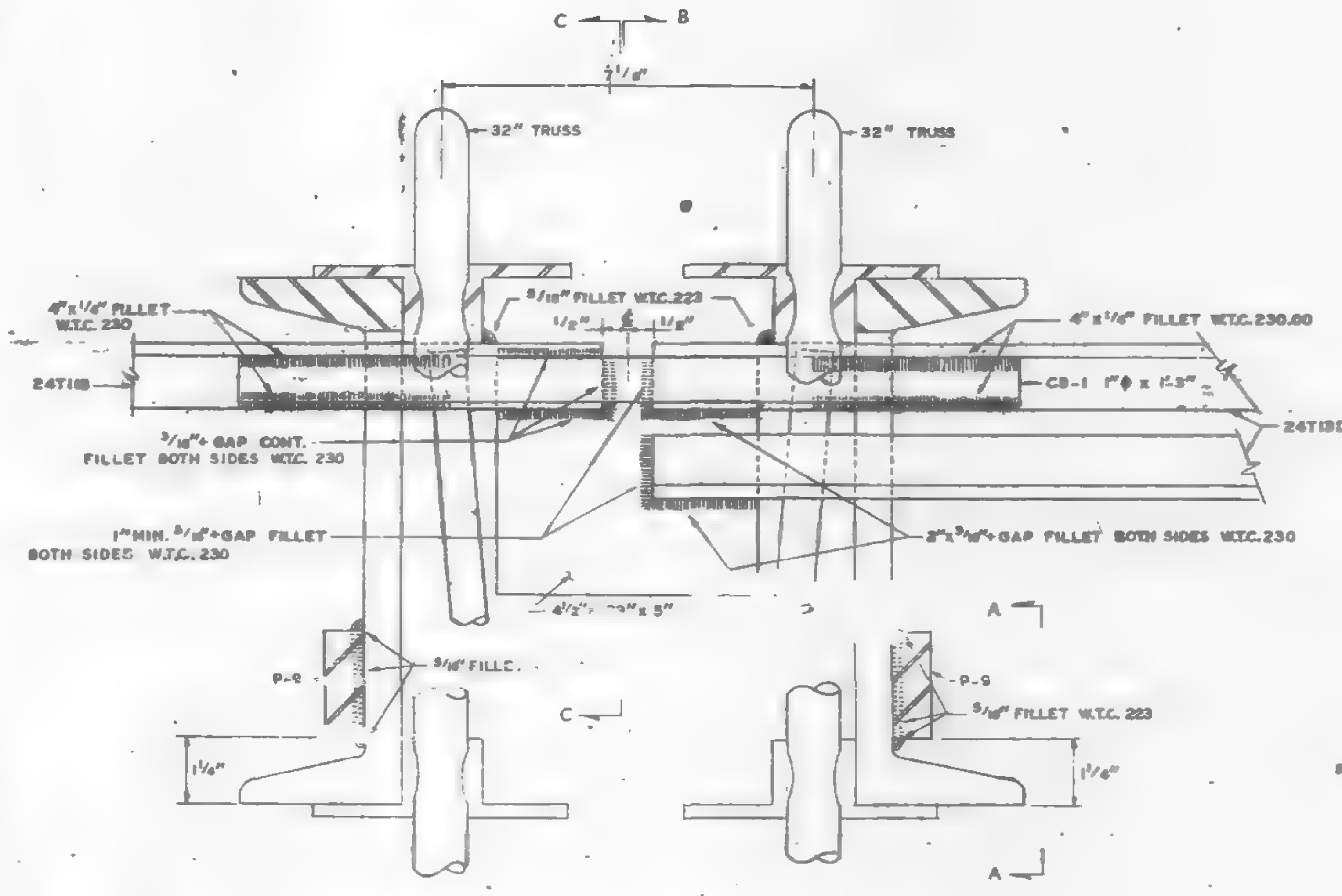
SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
☐ APPROVED
☒ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
10/15/68 SK

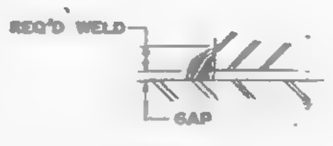
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

SPECIAL CONNECTION 7-X FOR FLOORS 25, 59 & 92.

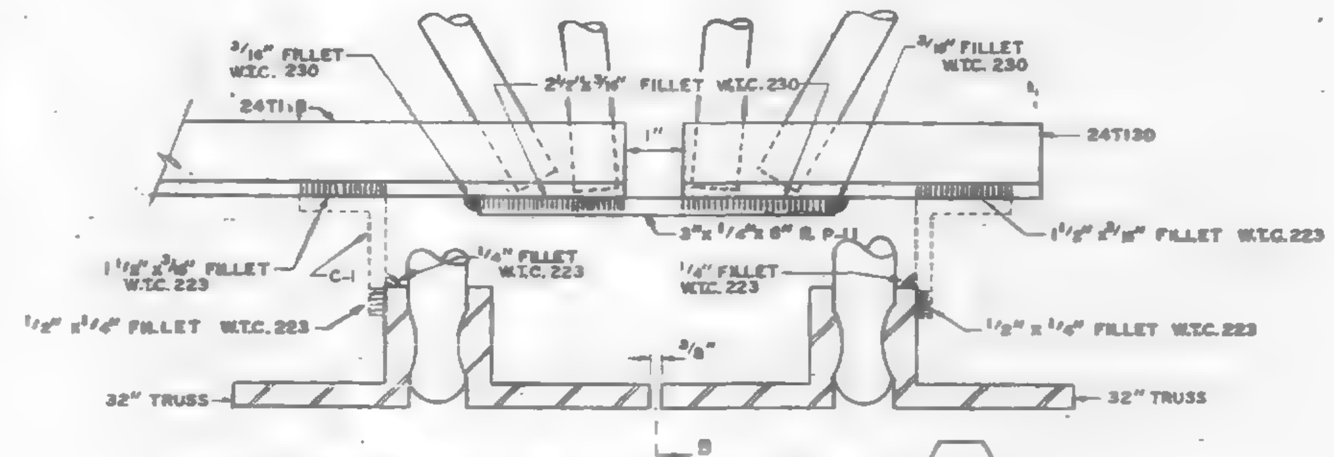
FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO.	
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. — DATE	DRAWN BY gdc DATE OCT. 10, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR — DATE	CHECKED BY: T.M. CHURA DATE OCT. 10, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A. CARL WEBER	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 212



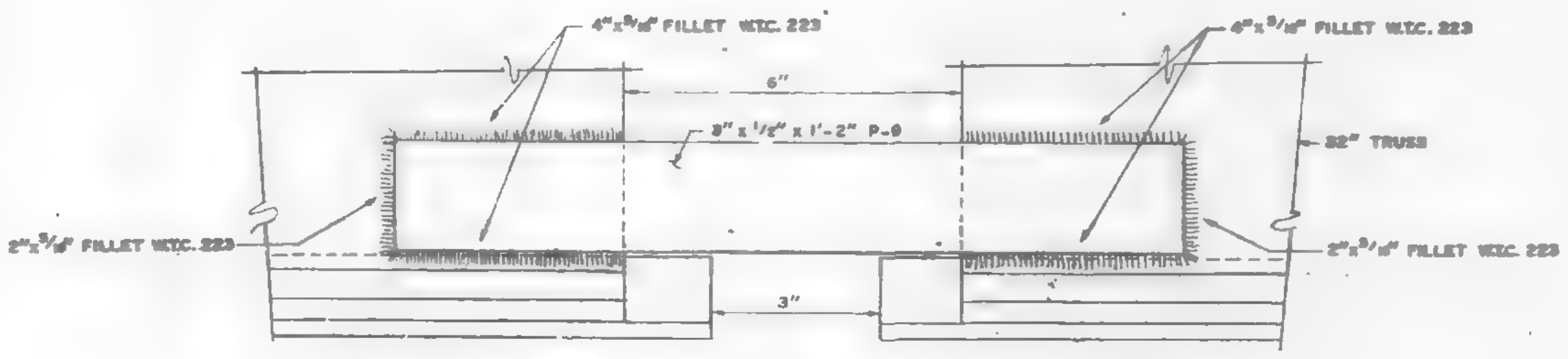


DETAIL "A"

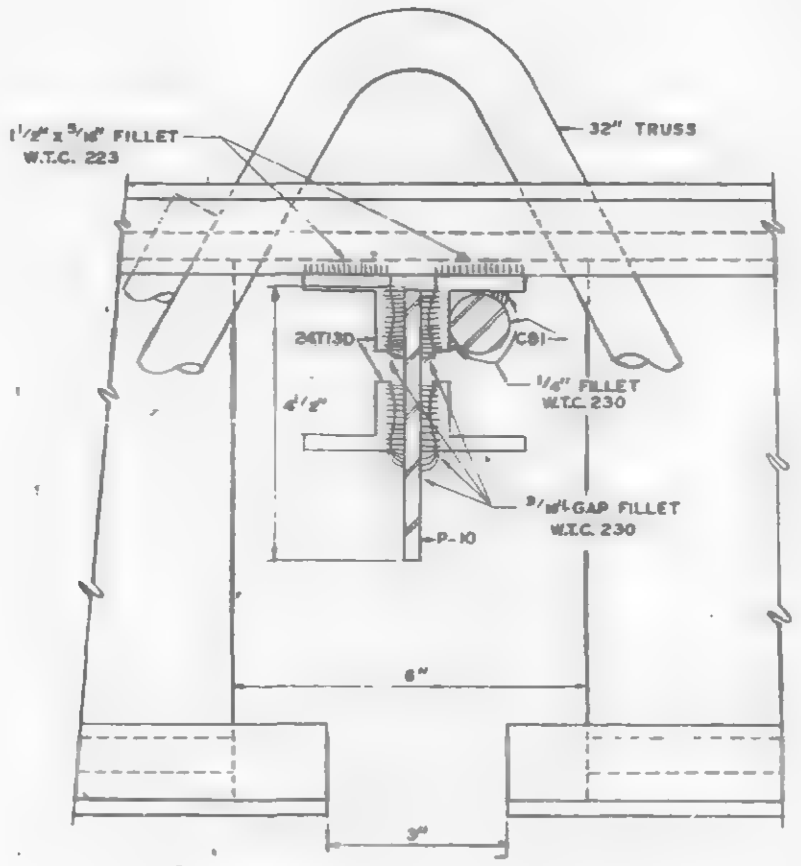


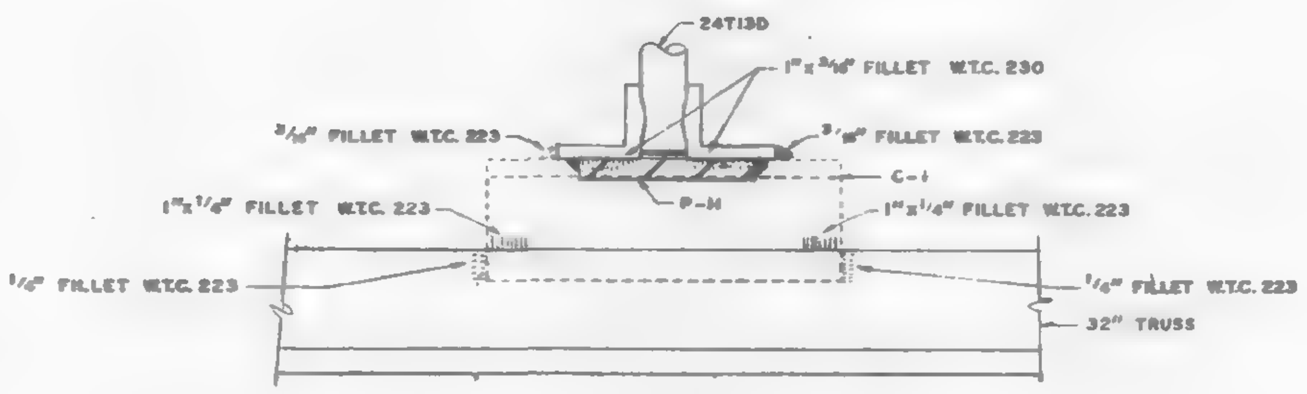
PANEL JOINT BRIDGING TRUSS CONNECTION (9-X)

24T13D TO 24T11B



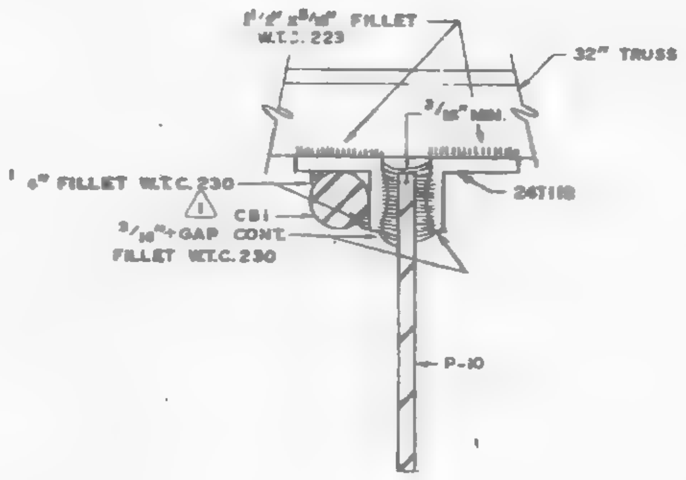
SECTION A-A





SECTION B-B

ALL ARC WELD TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES & Ø SPLICE BARS TO BE A.S.T.M. A36 STEEL.
SEE DETAIL A (THIS SHEET) FOR ALL +GAP WELDS.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.



SECTION-C-C

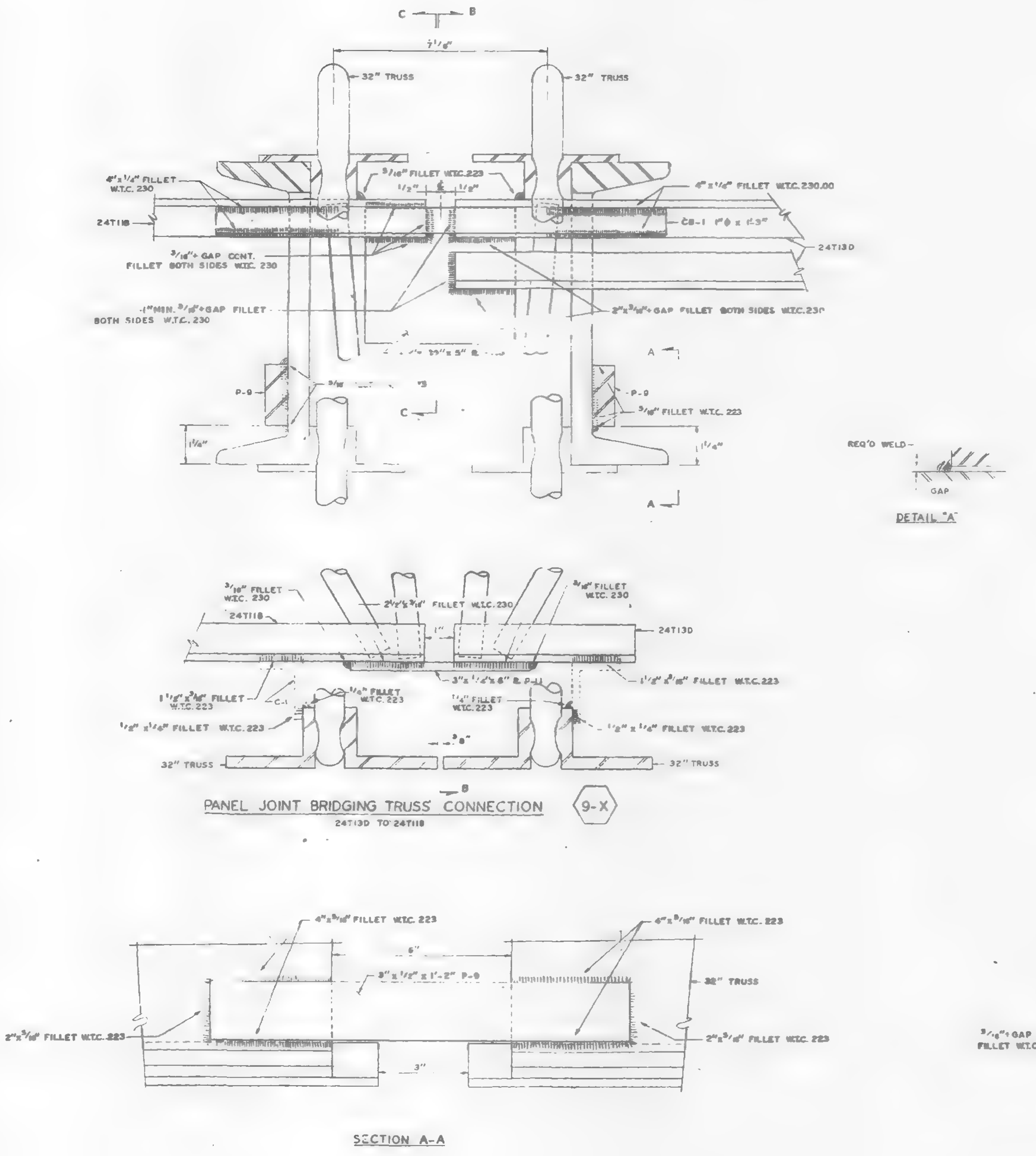
NO.	DATE	REVISION	BY
1	11-21-68	AS NOTED	G.D.C.

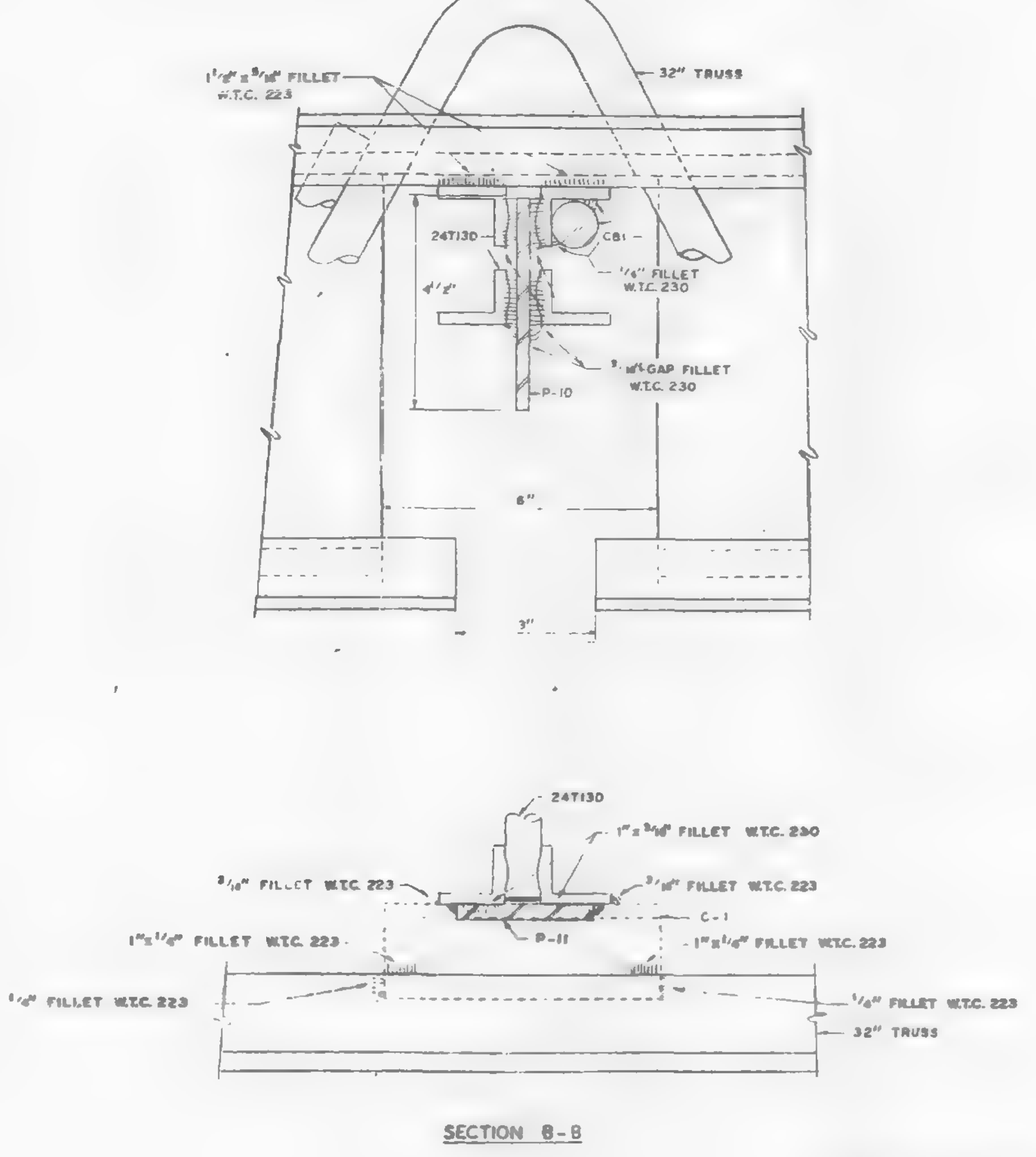
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

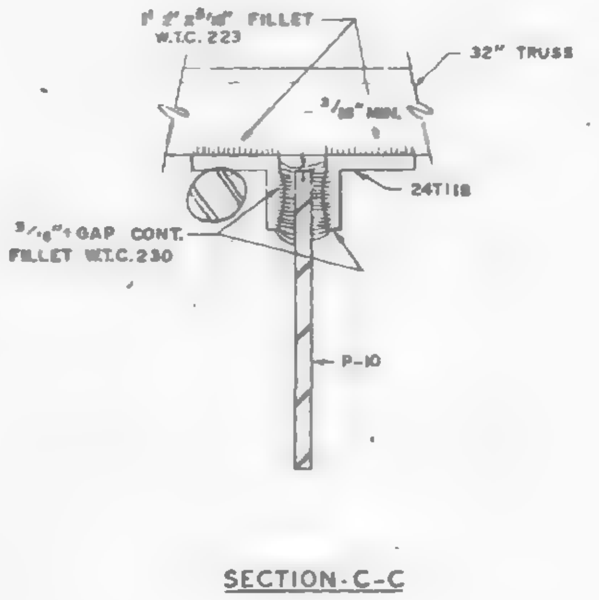
CONNECTION DETAIL 9-X FOR FLOORS 25, 59 & 92.
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A.	DATE 12/6/68	DRAWN BY: gdc DATE OCT. 23, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE OCT. 24, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 213







ALL ARC WELD TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES & ⌀ SPLICE BARS TO BE A.S.T.M. A36 STEEL.
SEE DETAIL A (THIS SHEET) FOR ALL + GAP WELDS.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

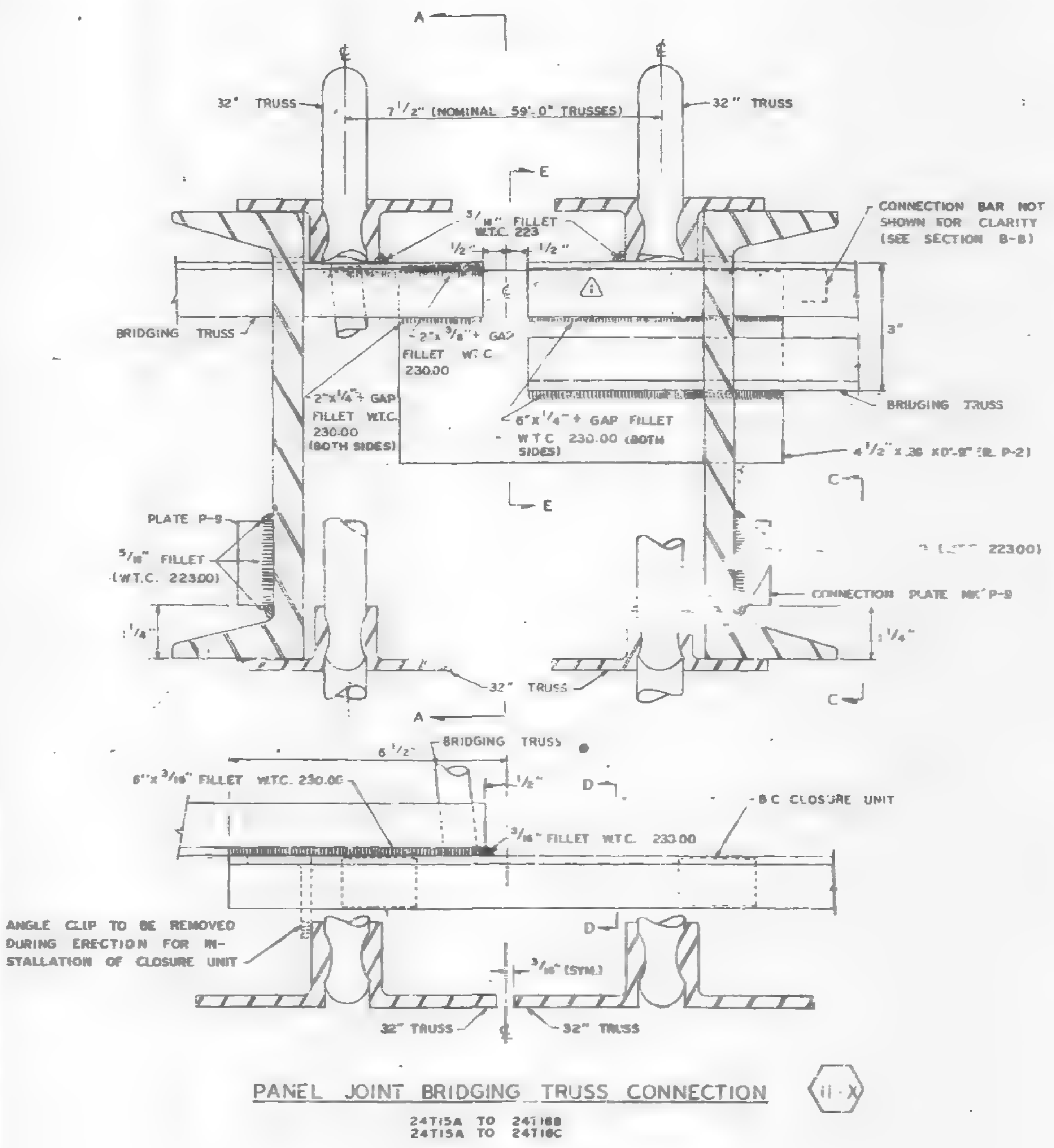
11/15/68 SC

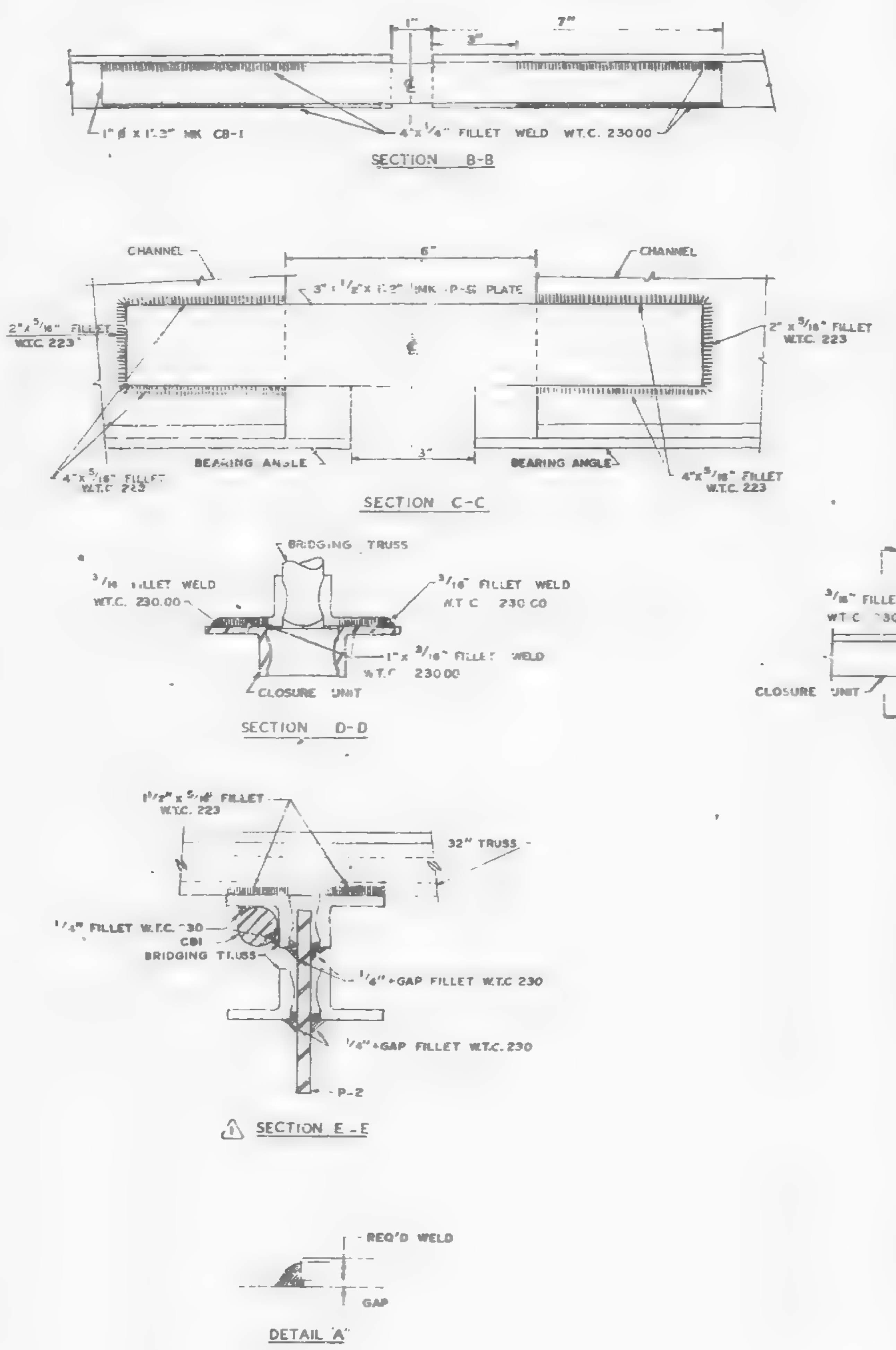
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

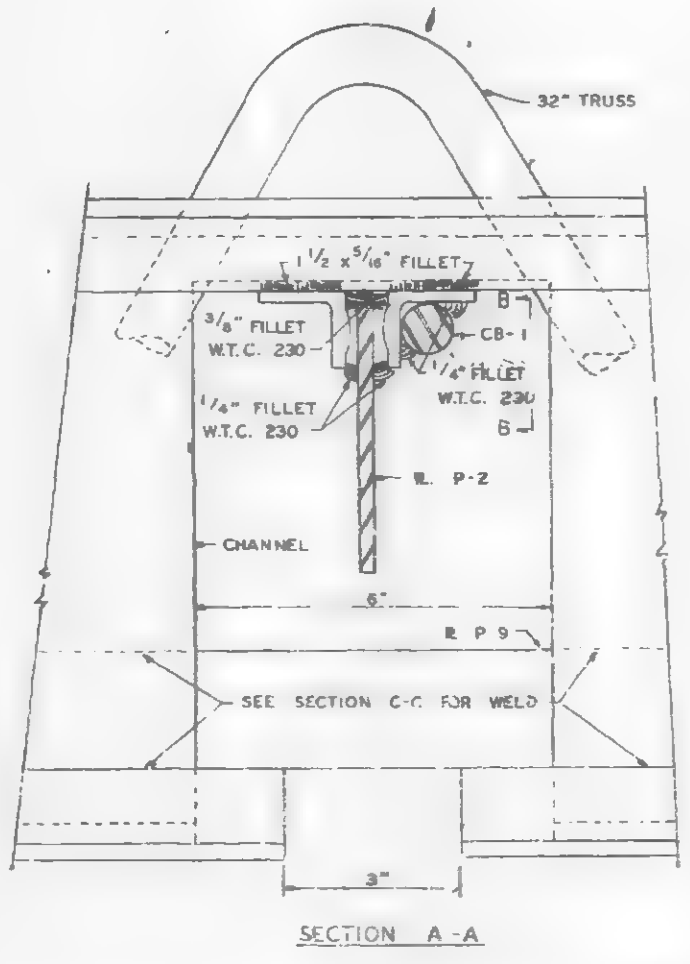
CONNECTION DETAIL 9-X FOR FLOORS 25, 59 & 92.
WORLD TRADE CENTER TOWERS A & B

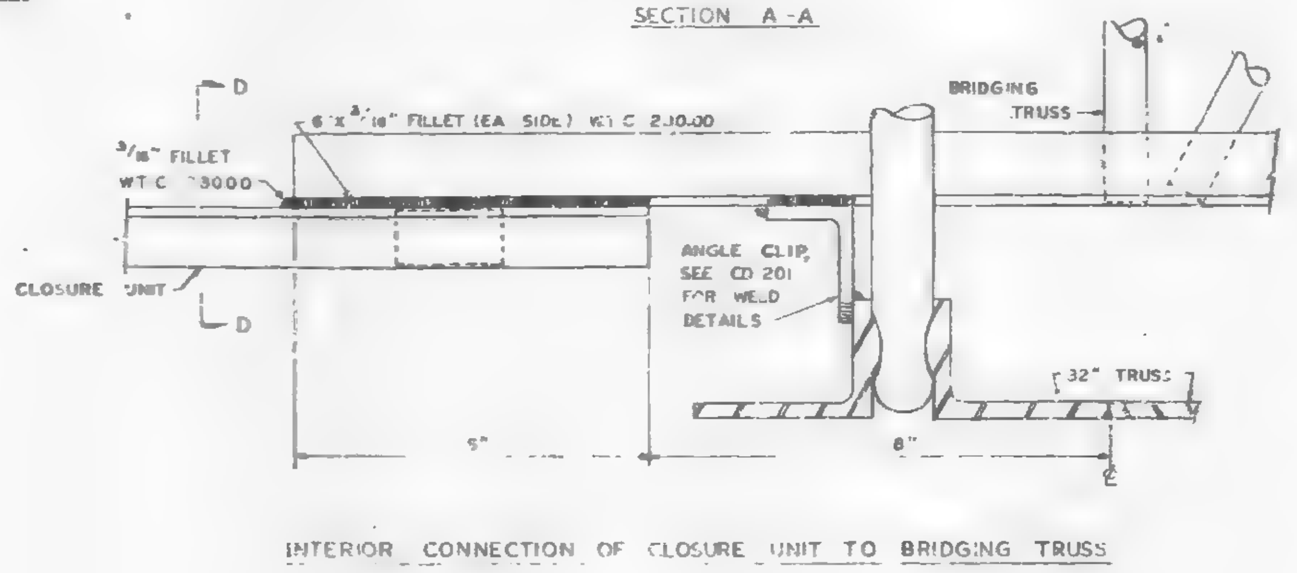
FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. — DATE	DRAWN BY: DATE OCT. 24, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR — DATE	CHECKED BY: T.M.CHURA DATE OCT. 24, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY CARL WEBER (LACLEDE STEEL CO.)	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 213









ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS OTHERWISE NOTED ALL ARC WELDS MADE BY W.T.C. 223.
ALL PLATES & ⌀ SPLICE BARS TO BE A.S.T.M. A36 STEEL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92
SEE DETAIL 'A', THIS SHEET, FOR +GAP WELDS.

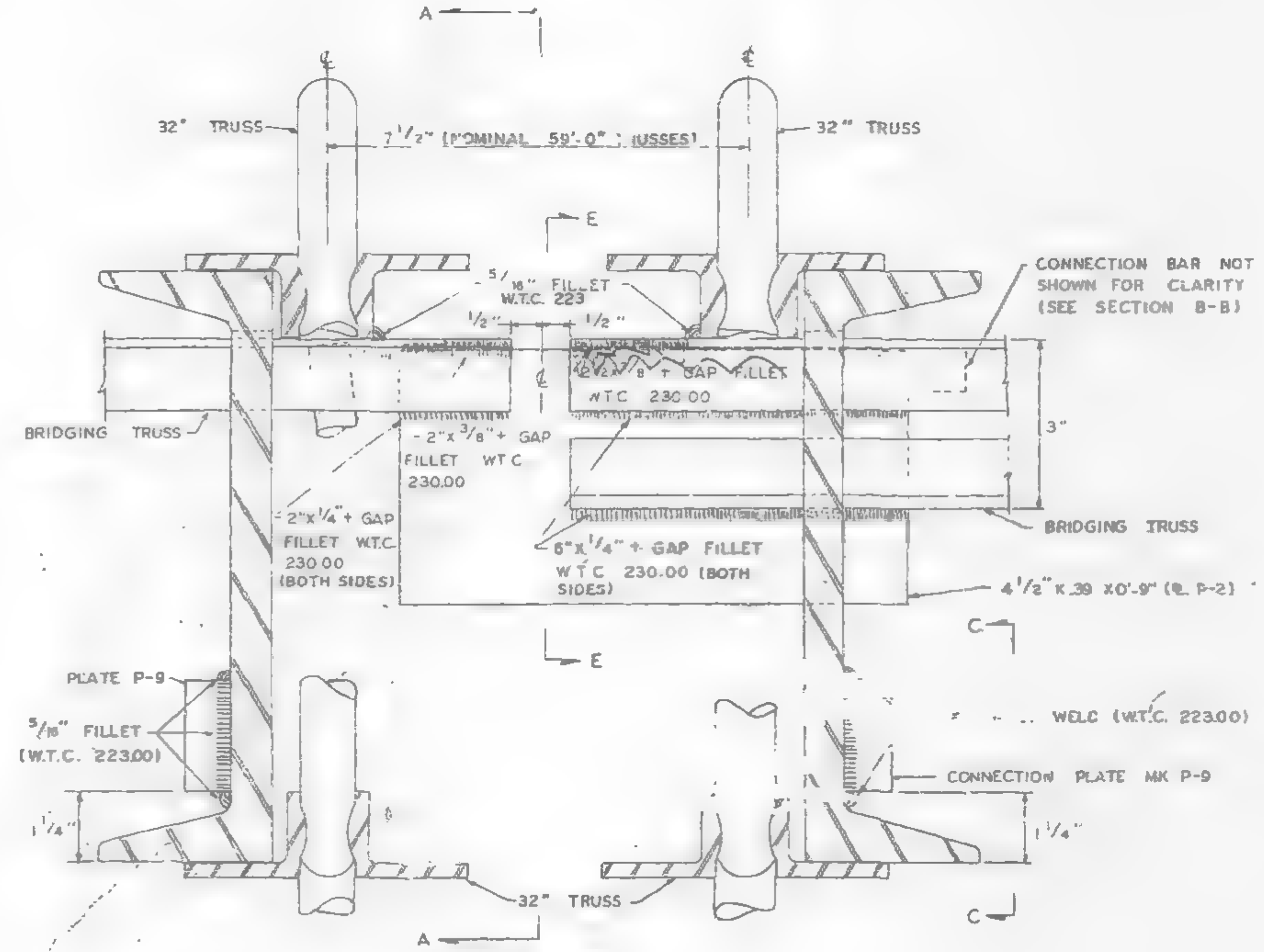
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 11-X FLOORS 25-59-92

FABRICATION BY LACLEDE STEEL COMPANY

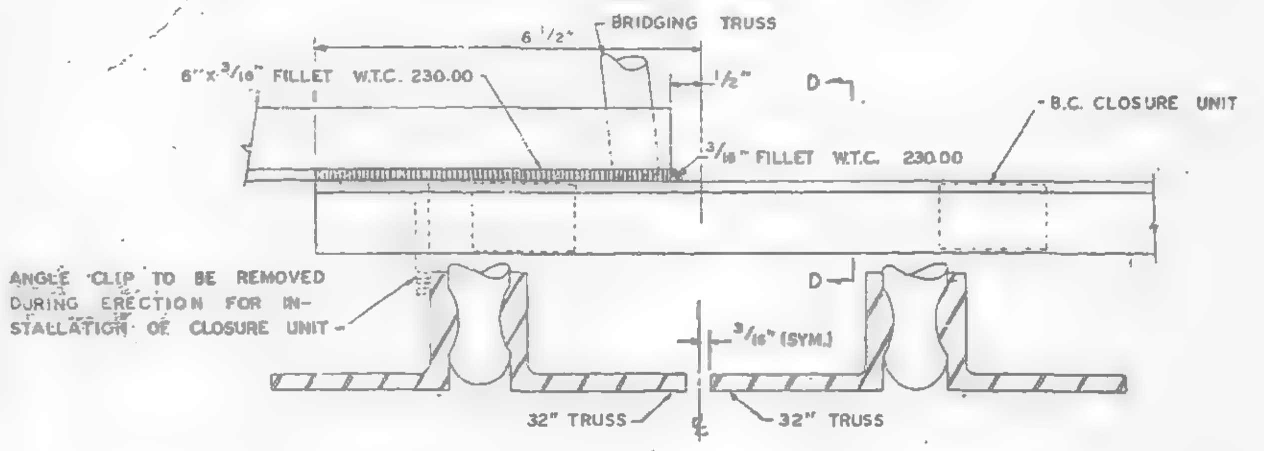
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A94-17.7	PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A.	DATE 12/6/68	DRAWN BY DATE 10-29-68	
APPROVED FOR ... BY LACLEDE STEEL CO.	DATE	CHECKED BY T.M. CHURA DATE 10-29-68	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 214

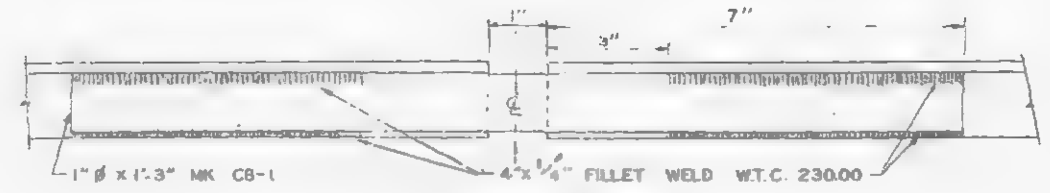
NO	DATE	REVISION	BY
1	11-21-68	AS NOTED	G.D.C.



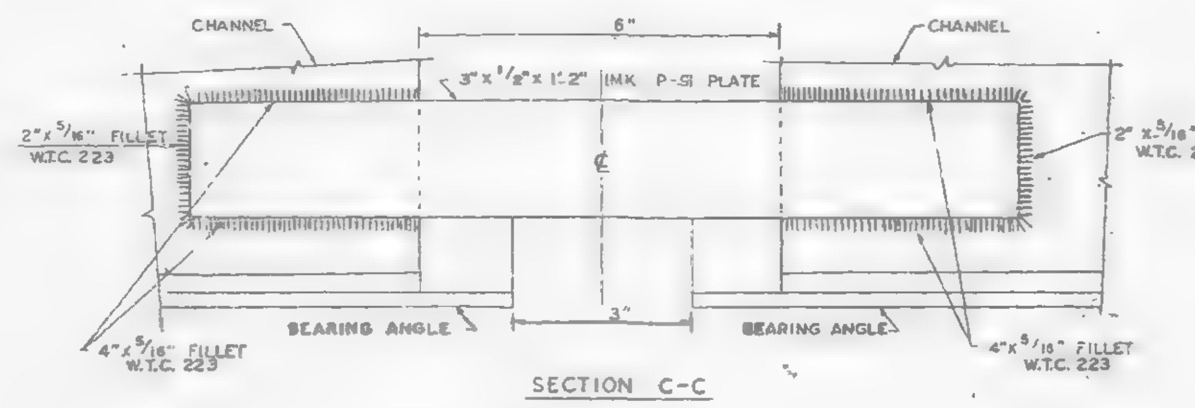
PANEL JOINT BRIDGING TRUSS CONNECTION (11-X)

24T15A TO 24T16B
24T15A TO 24T16C

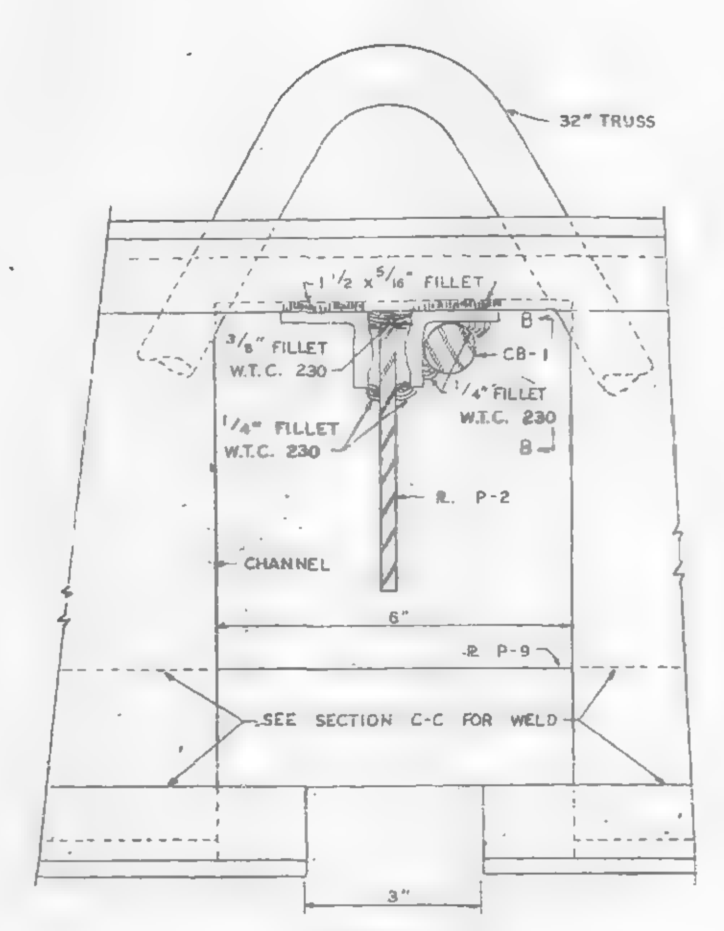




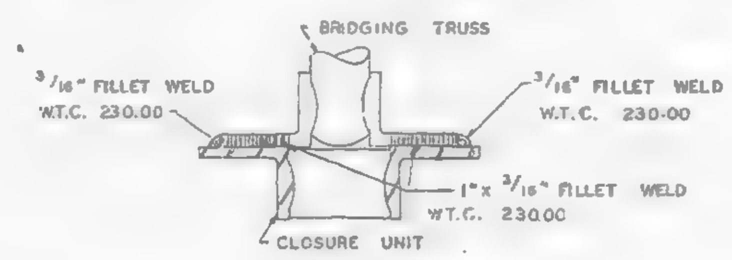
SECTION B-B



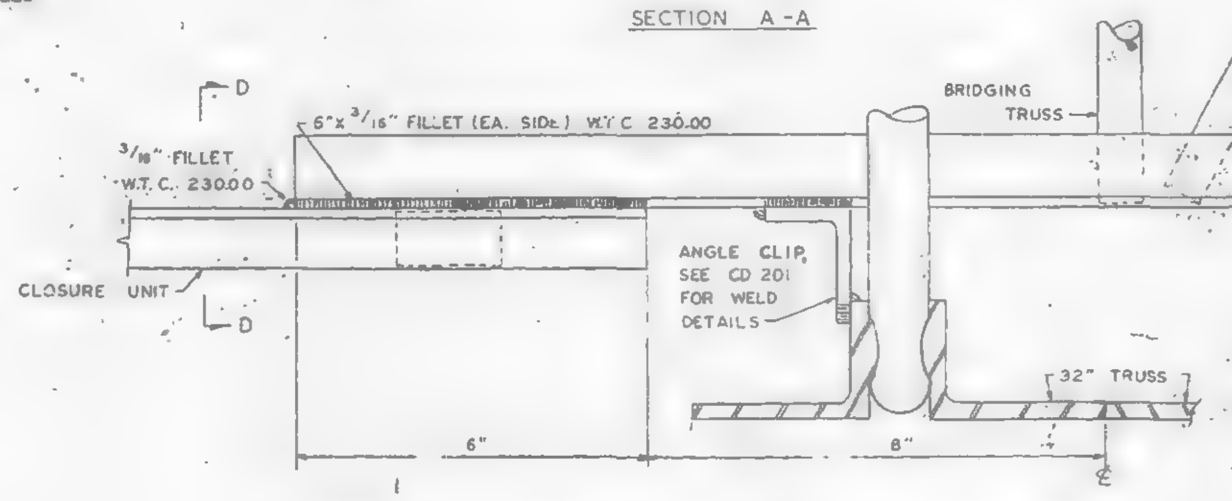
SECTION C-C



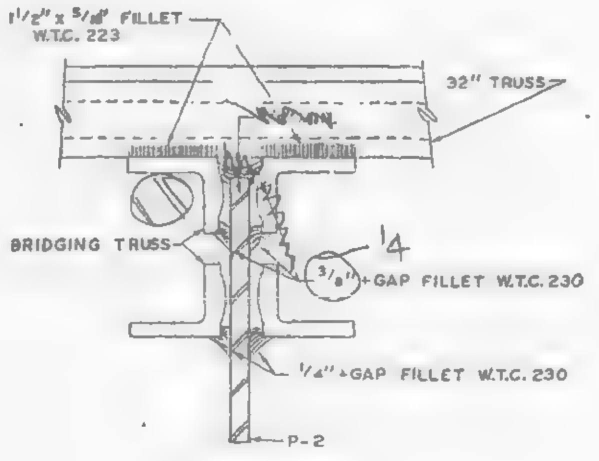
SECTION A-A



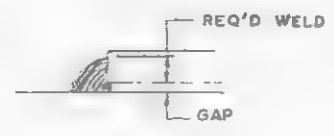
SECTION D-D



INTERIOR CONNECTION OF CLOSURE UNIT TO BRIDGING TRUSS



SECTION E-E



DETAIL "A"

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS OTHERWISE NOTED ALL ARC WELDS MADE BY W.T.C. 223.
ALL PLATES & SPLICE BARS TO BE A.S.T.M. A36 STEEL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.
SEE DETAIL "A", THIS SHEET, FOR + GAP WELDS.

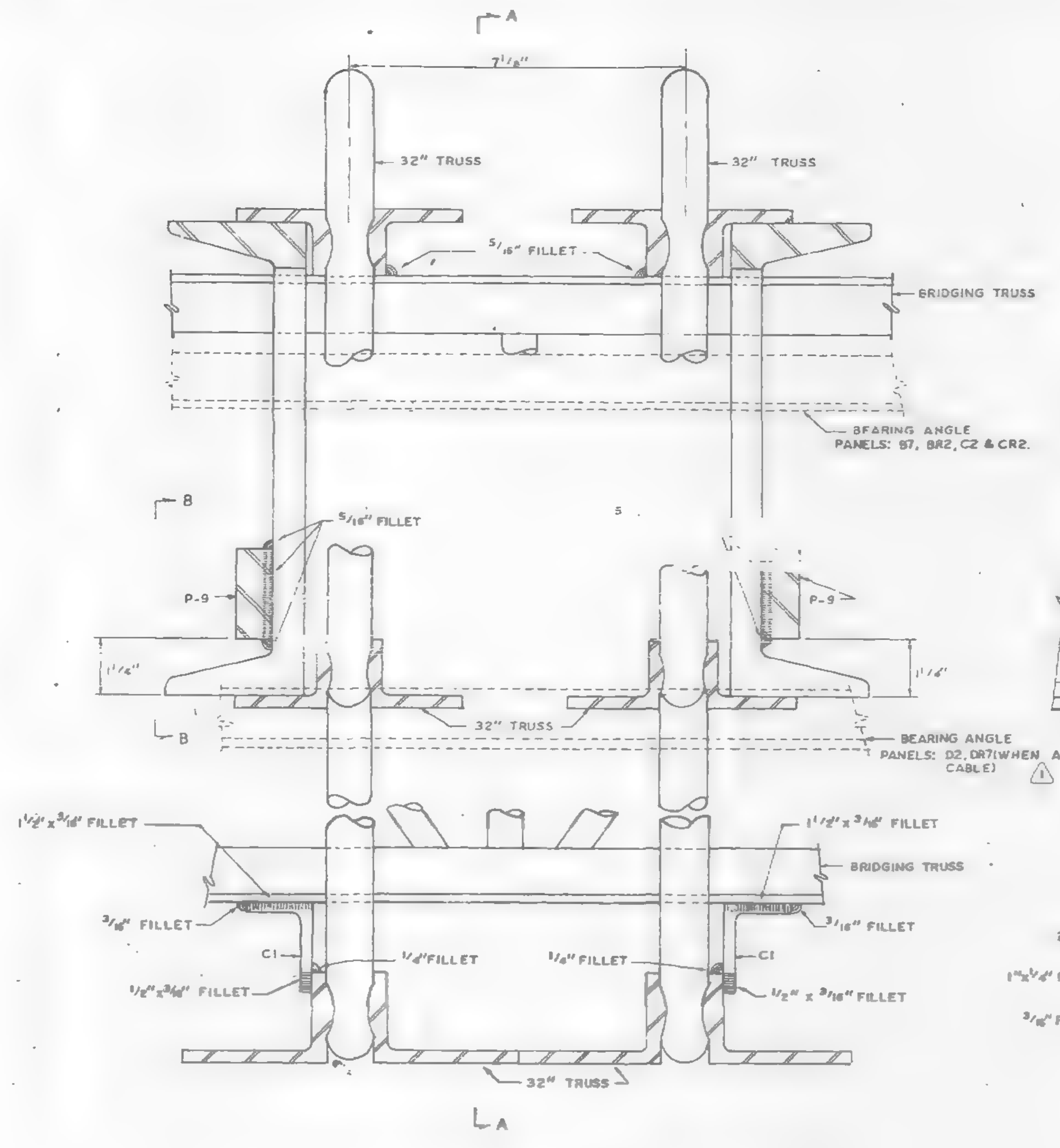
SKILLING HELLE CHRISTIANSEN ROBERTSON Structural Engineers
X
11/15/68 SK

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 11-X FLOORS 25-59-92

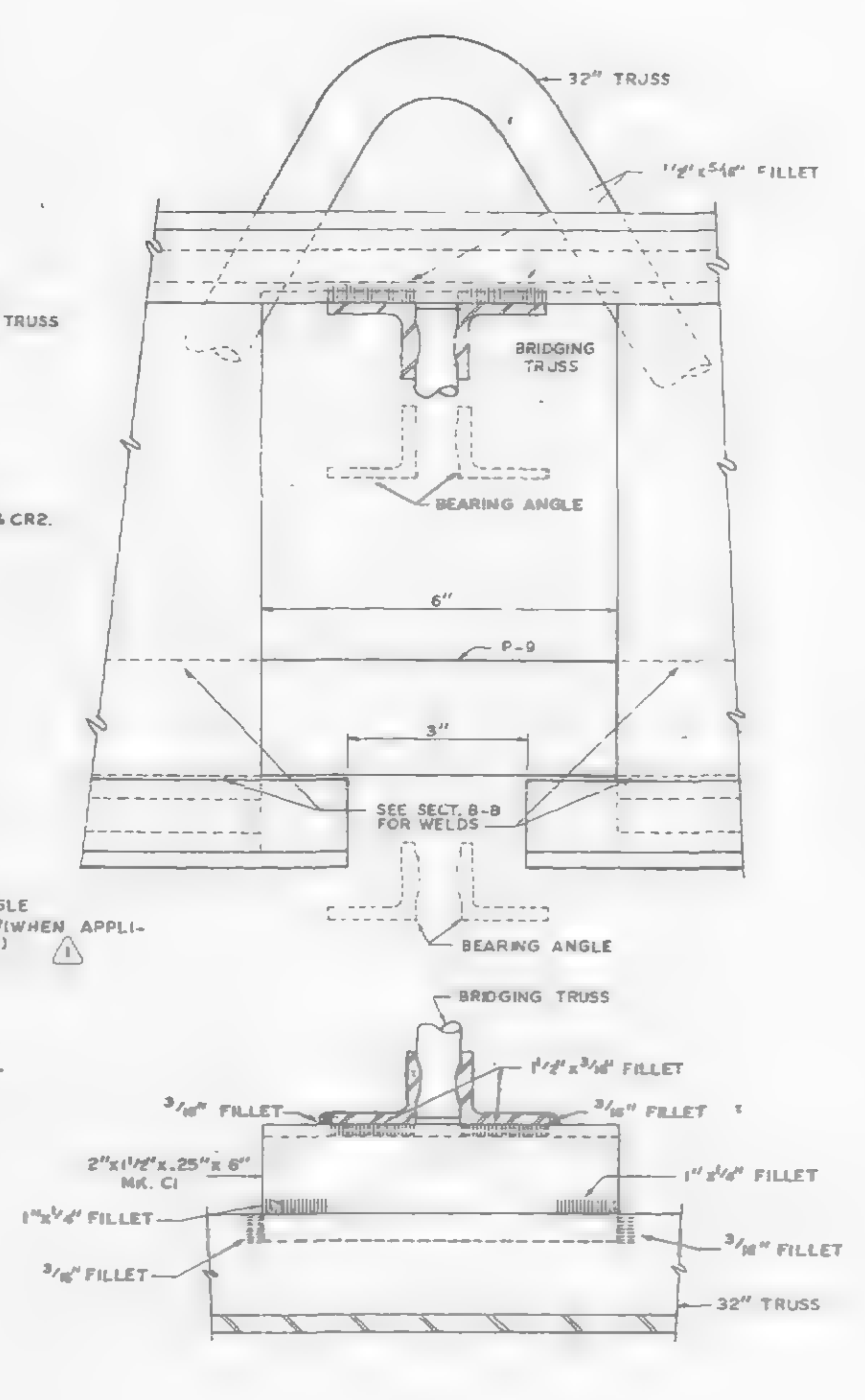
FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT: MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-17.7	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A.	DATE	DRAWN BY: DATE: 10-25-68	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE: 10-28-68	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER	LACLEDE STEEL CO.	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 214

NO	DATE	REVISION	BY

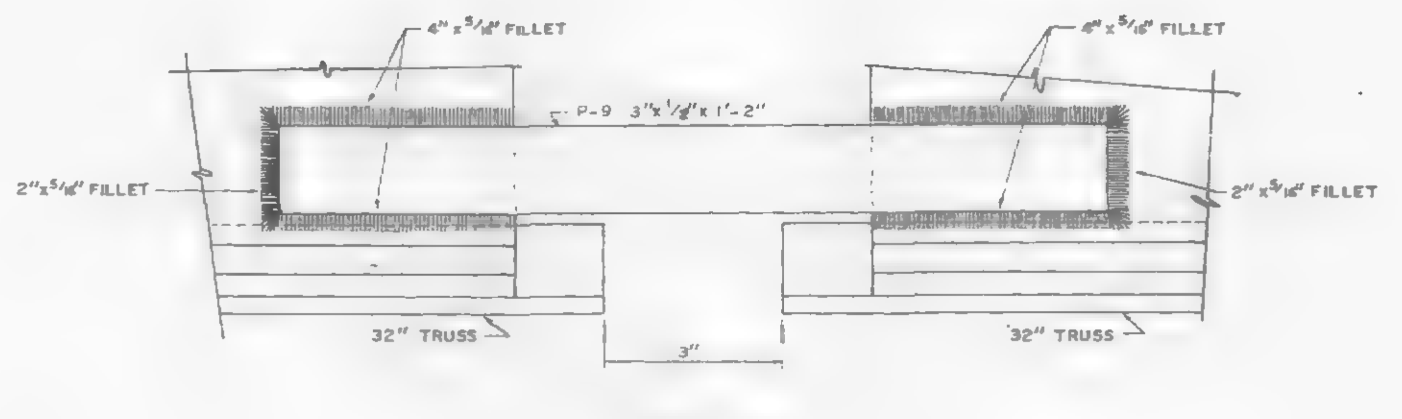


INTERIOR BRIDGING TRUSS CONNECTION (4-X)

PANELS: A2, B2, BR2, B7, BR7, C2, CR2, D2, DR2, D7, DR7, E2 & ER2. (2)



SECTION A-A



SECTION B-B

(BEARING ANGLE FOR PANELS D2 & DR7 NOT SHOWN FOR CLARITY) (1)

UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE A.S.T.M. A36 STEEL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

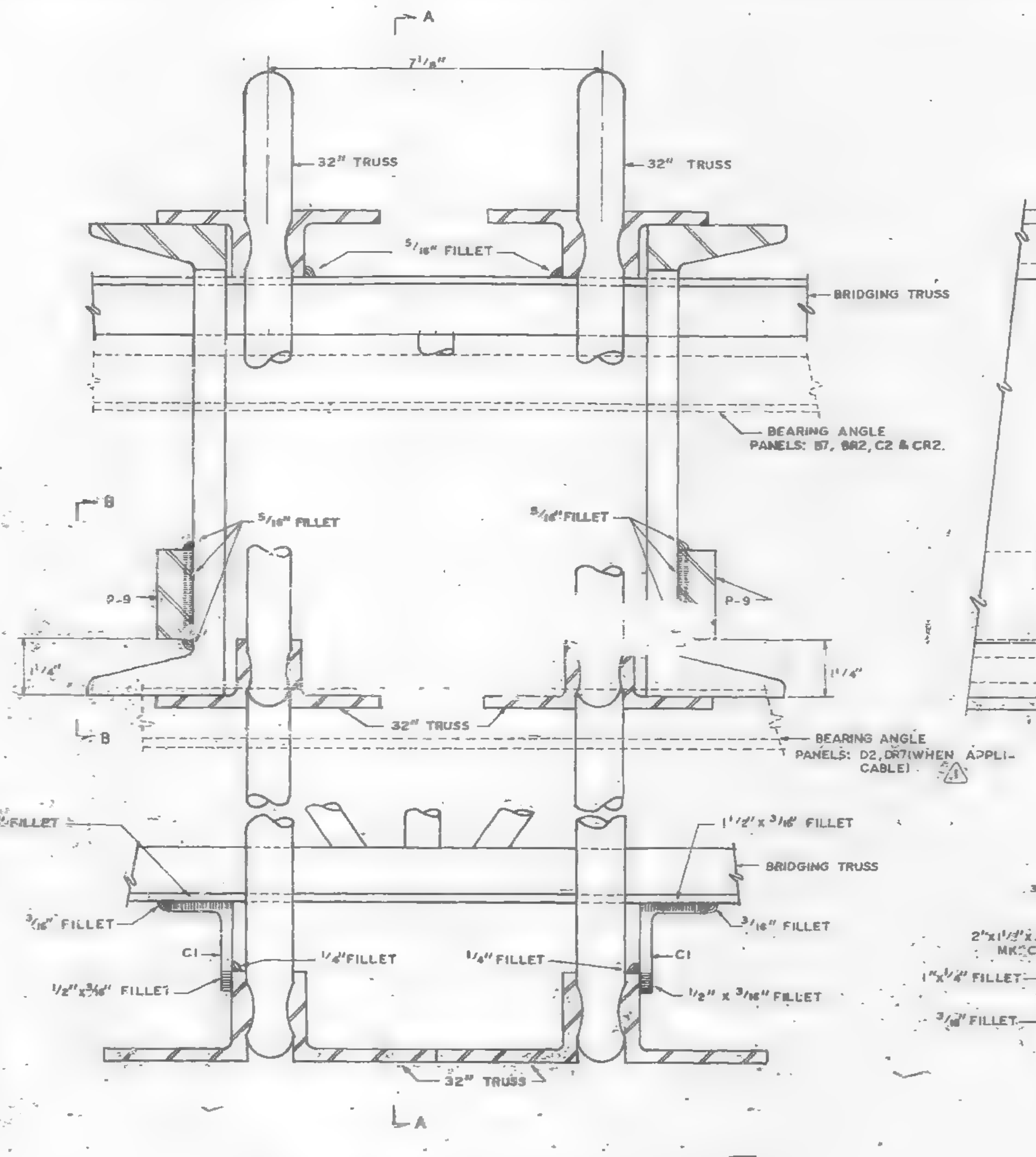
CONNECTION DETAIL 4-X FOR FLOORS 25, 59 & 92

WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

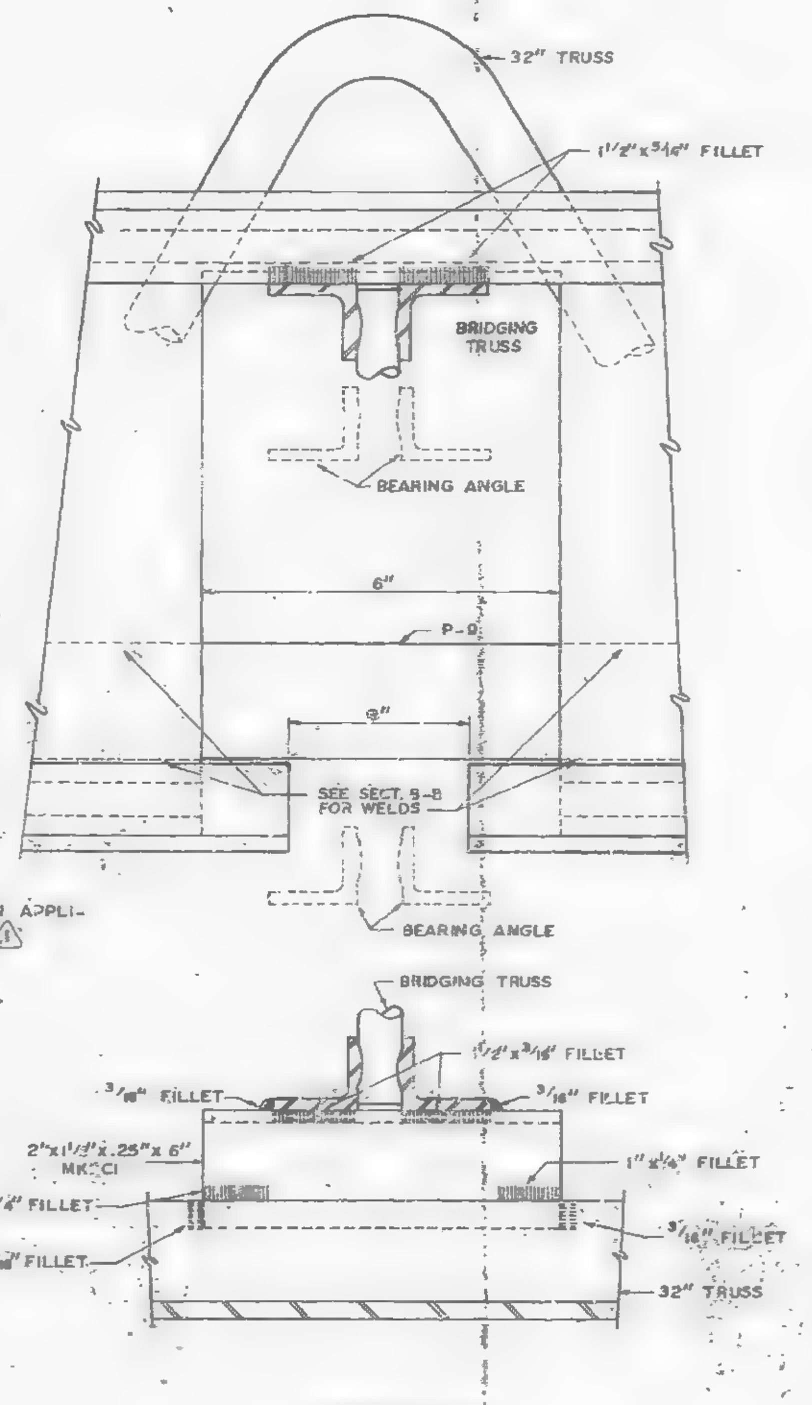
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-17	PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY: G.D.C. DATE NOV. 4, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE NOV. 4, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A. CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 215

NO.	DATE	REVISION	BY
2	1-9-69	AS NOTED	G.D.C.
1	11-21-68	AS NOTED	G.D.C.

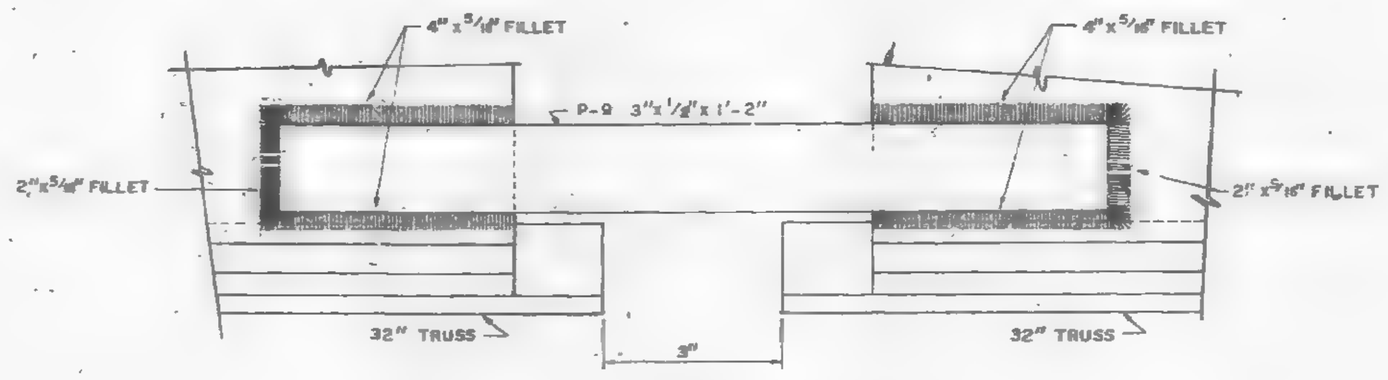


INTERIOR BRIDGING TRUSS CONNECTION 4-X

PANELS: A2, B2, BR2, B7, BR7, C2, CR2, DR2, D7, DR7, E2 & ER2.



SECTION A-A



SECTION B-B

(BEARING ANGLE FOR PANELS D2 & DR7 NOT SHOWN FOR CLARITY)

UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE A.S.T.M. A36 STEEL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

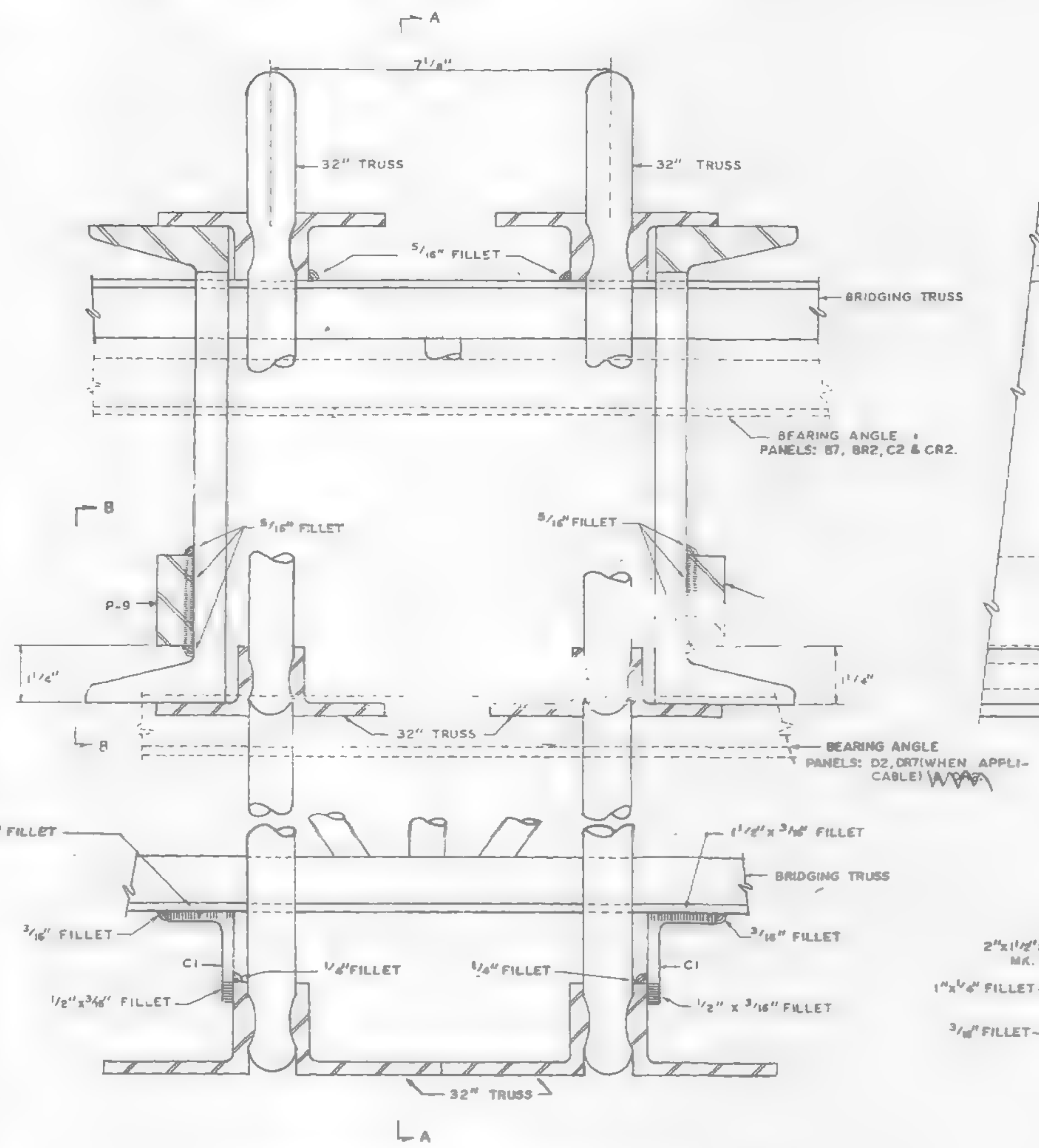
CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 4-X FOR FLOORS 25, 59 & 92
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

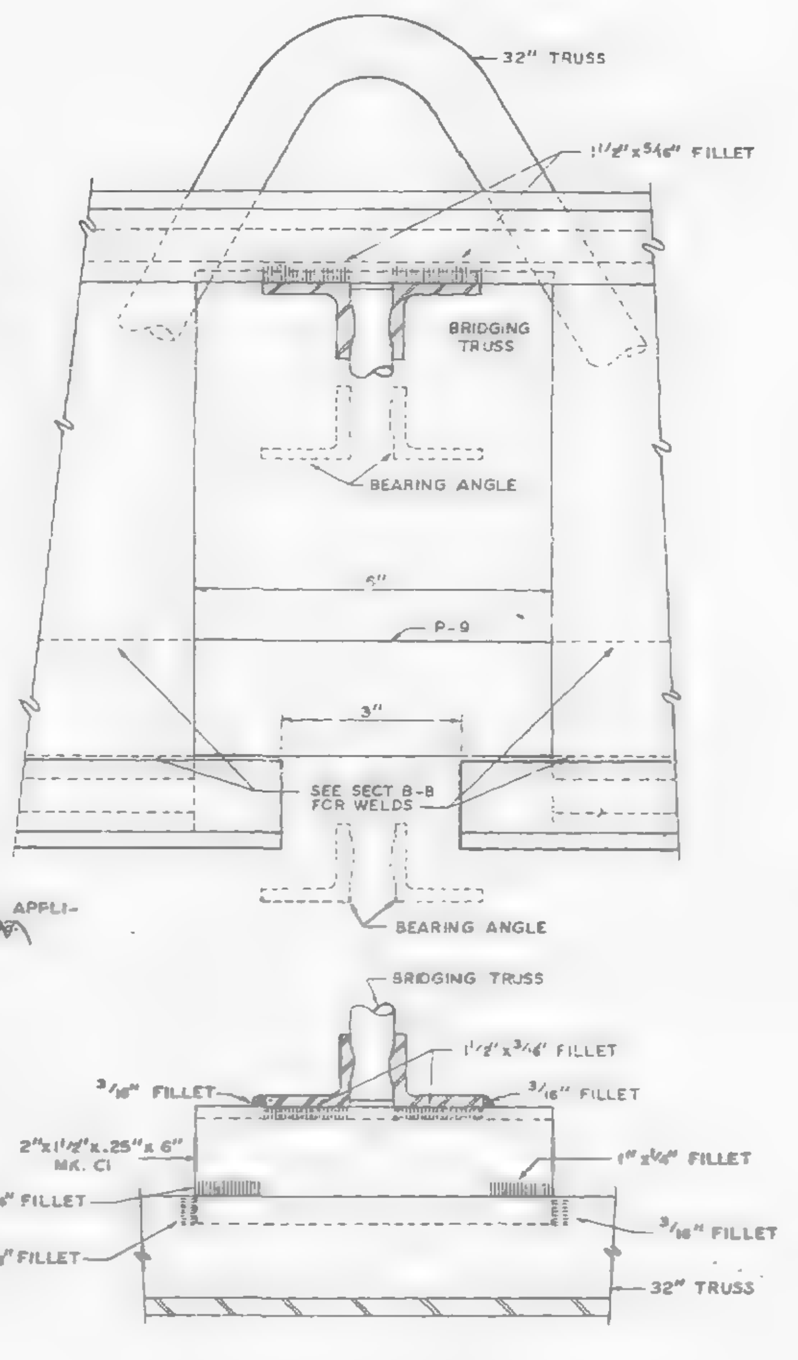
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-17	PLATE
APPROVED FOR FABRICATION BY: [signature] FOR P.O.N.Y.A.	DATE 12/6/68	DRAWN BY: G.D.C. DATE NOV. 4, 1968	
APPROVED FOR FABRICATION BY: LACLEDE STEEL CO.	DATE	CHECKED BY: T.M.CHURA DATE NOV. 4, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 215

NO.	DATE	REVISION	BY
1	11-21-68	AS NOTED	G.D.C.

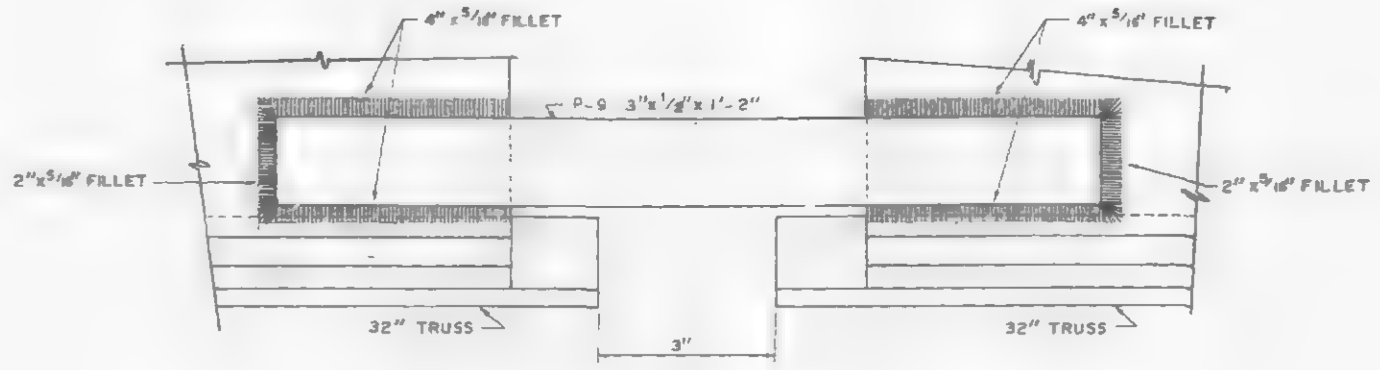


INTERIOR BRIDGING TRUSS CONNECTION (4-X)

PANELS: A2, B2, BR2, B7, BR7, C2, CR2, DR2, D7, DR7, E2 & ER2.



SECTION A-A



SECTION B-B

(BEARING ANGLE FOR PANELS D2, DR7 NOT SHOWN FOR CLARITY)

UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE A.S.T.M. A36 STEEL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
X
1568 SK

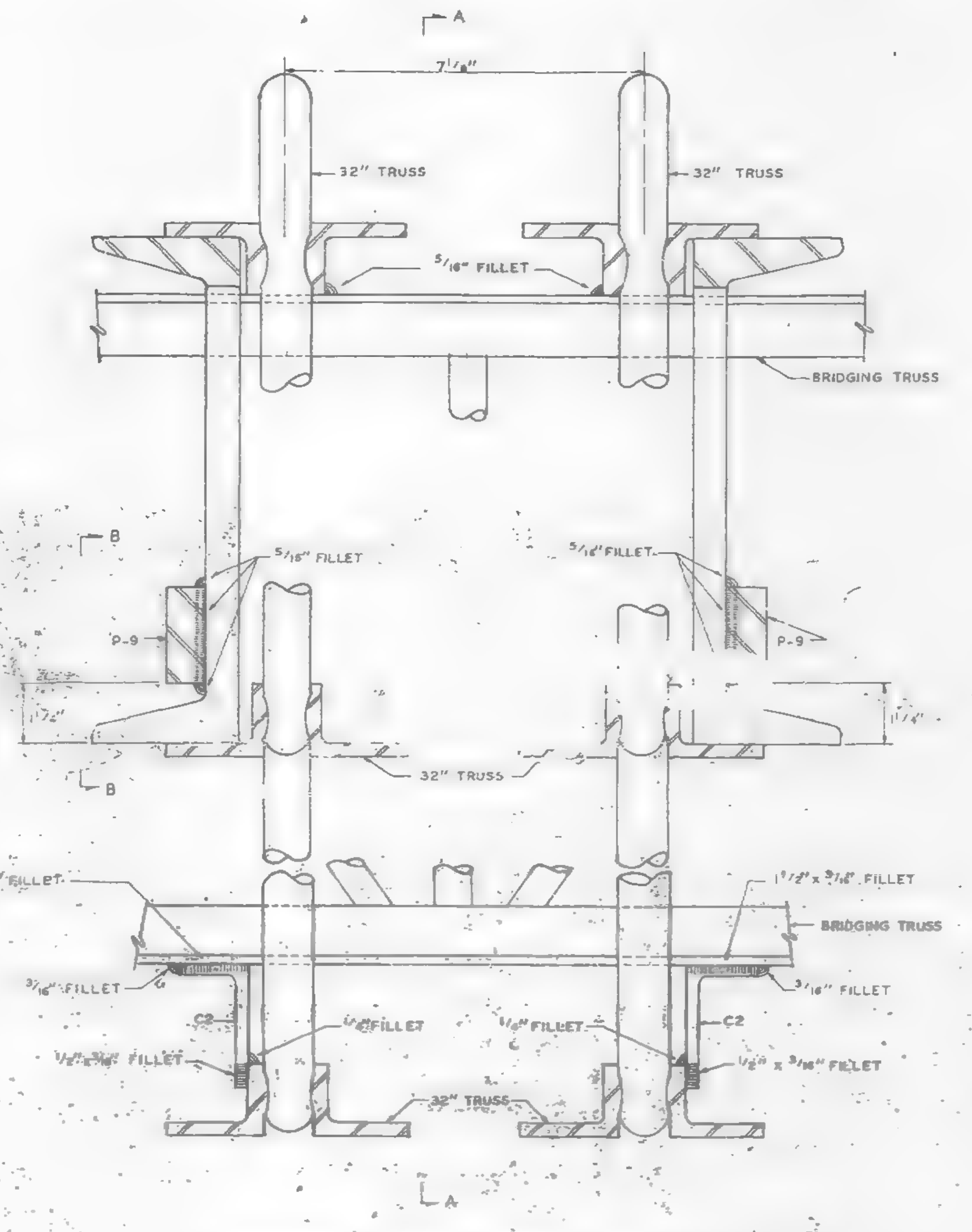
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 4-X FOR FLOORS 25, 59 & 92

WORLD TRADE CENTER TOWERS A & B

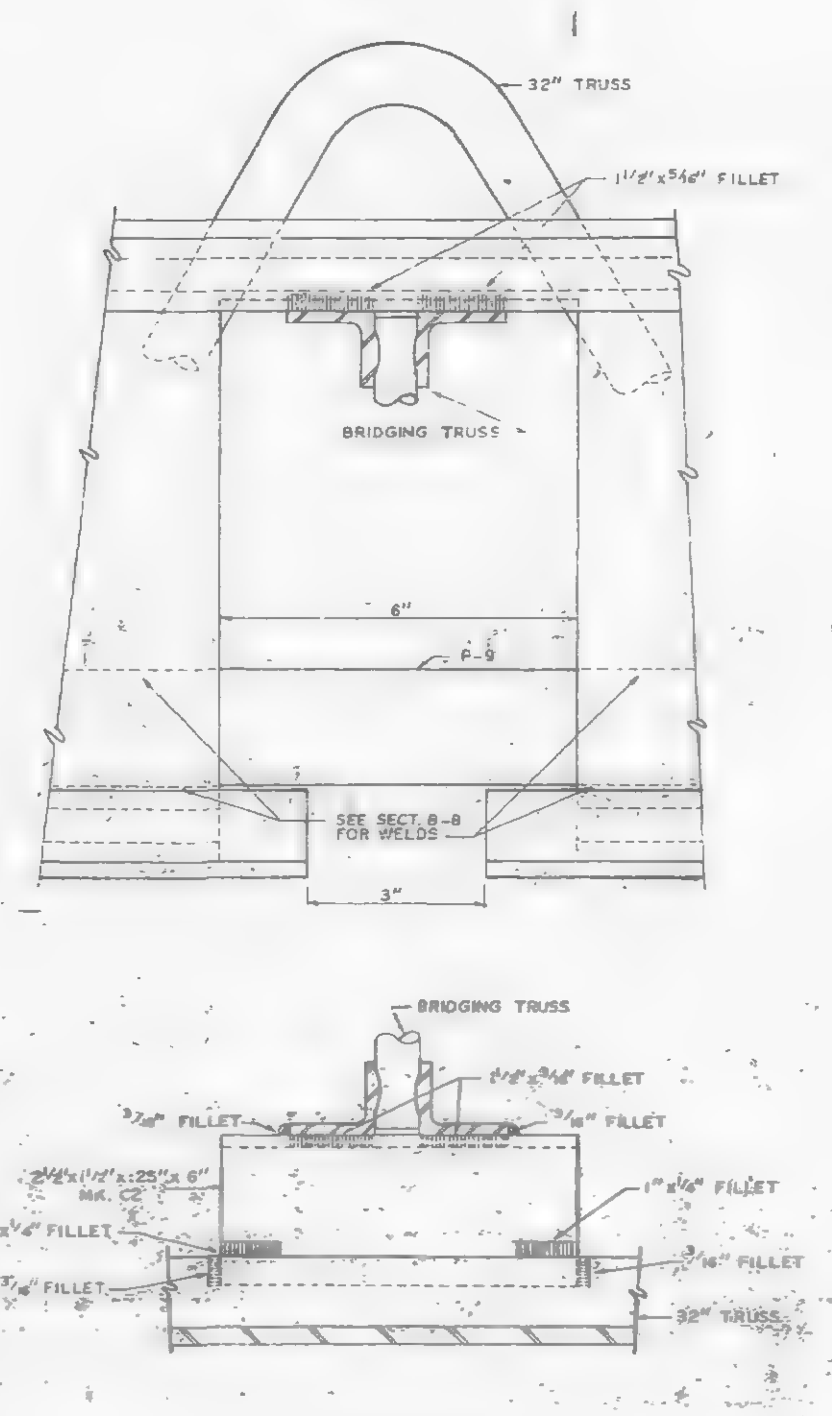
FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO. 7-A84-17	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. — DATE	DRAWN BY: G.D.C. DATE NOV. 4, 1966	
APPROVED FOR FABRICATION BY: FOR FABRICATOR — DATE	CHECKED BY: T.M.CHURA DATE NOV. 4, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER	FABRICATION CONT. NO W.T.C. 221	SHEET NO. CD 215

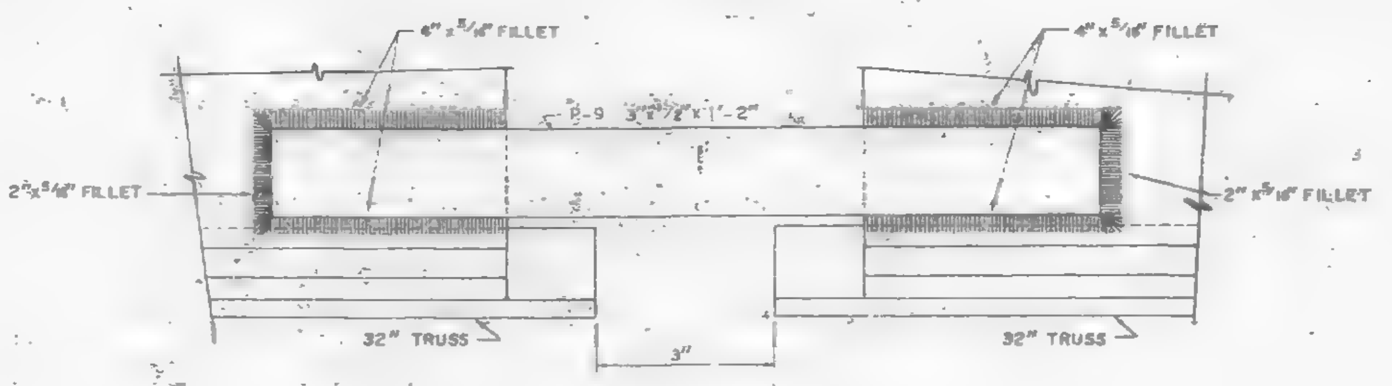


INTERIOR BRIDGING TRUSS CONNECTION (4-XA)

PANELS: F2 & FR2



SECTION A-A



SECTION B-B

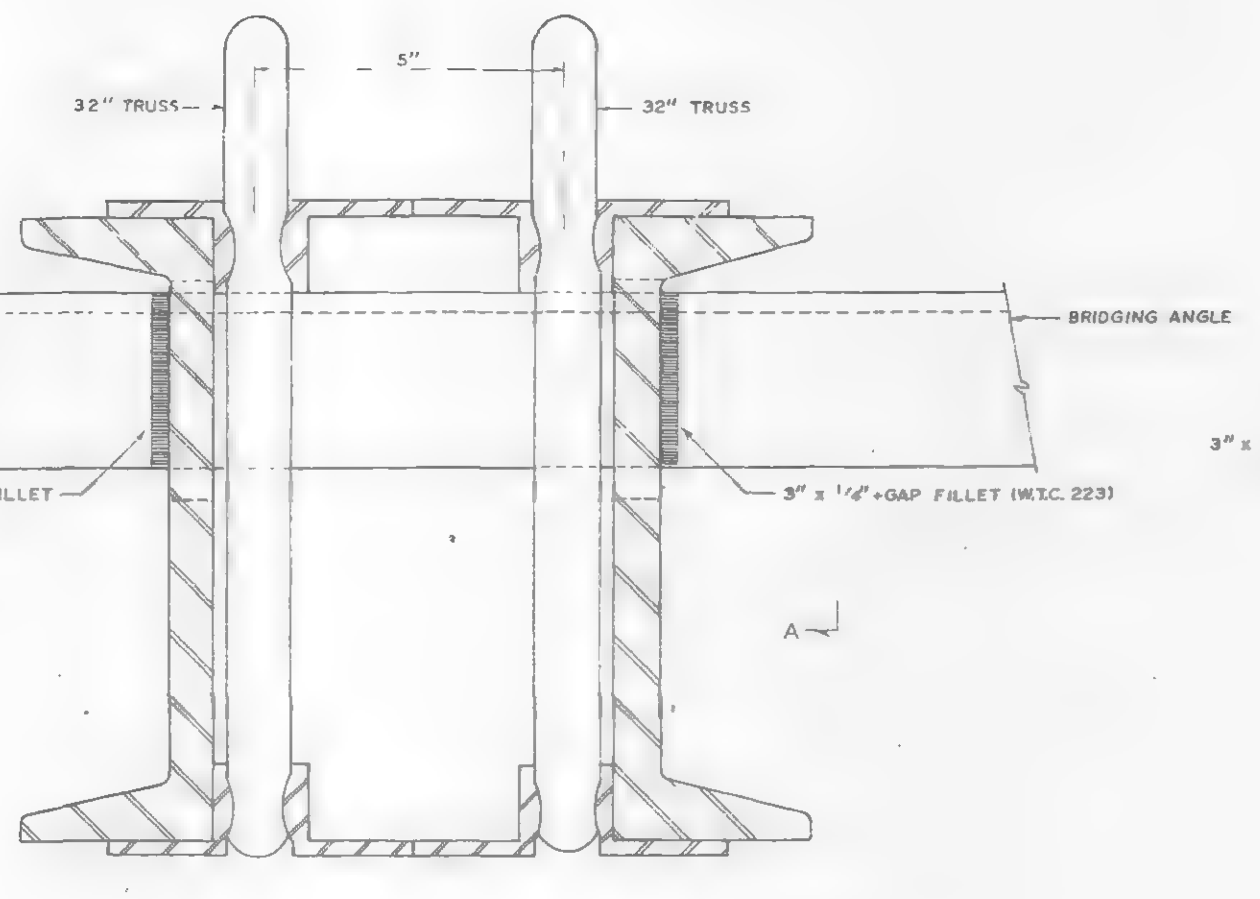
UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C. 223.
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE A.S.T.M. A36 STEEL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

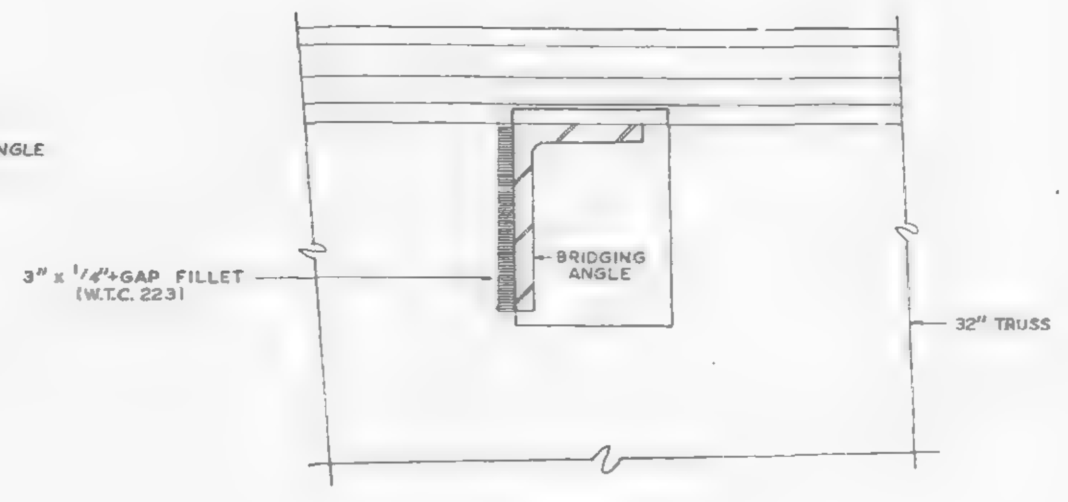
CONNECTION DETAIL 4-XA FOR FLOORS 25, 59 & 92
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

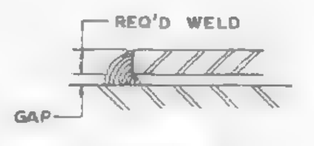
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-17	PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 12/19/68	DRAWN BY: G.D.C. DATE NOV 4, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE NOV. 4, 1968	IN CHARGE OF PROD DEV.
DETAILED BY: A. CARL WEBER LACLEDE STEEL CO.		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 216



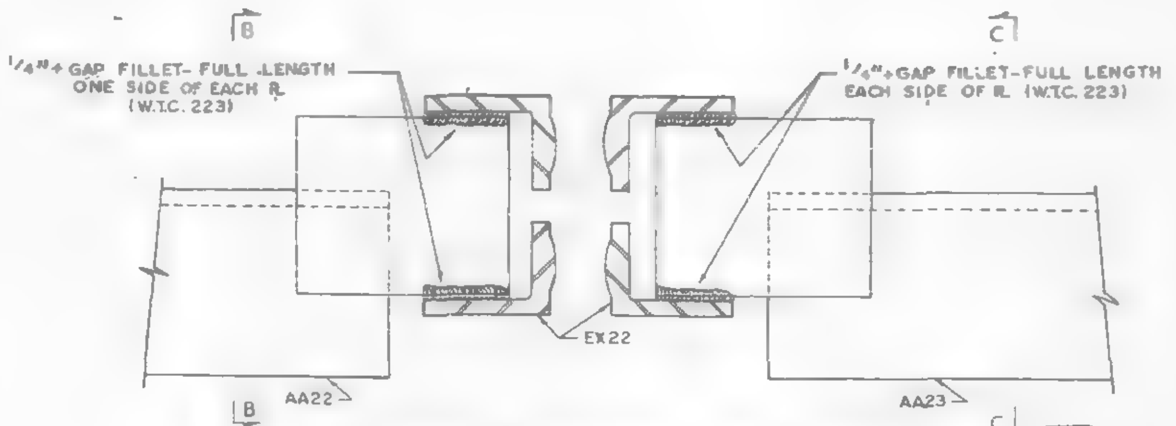
INTERIOR BRIDGING ANGLE CONNECTION (1-XA) △2
△2 PANELS: J2, H2, H7, HR2, HR7, G2 & GR2.



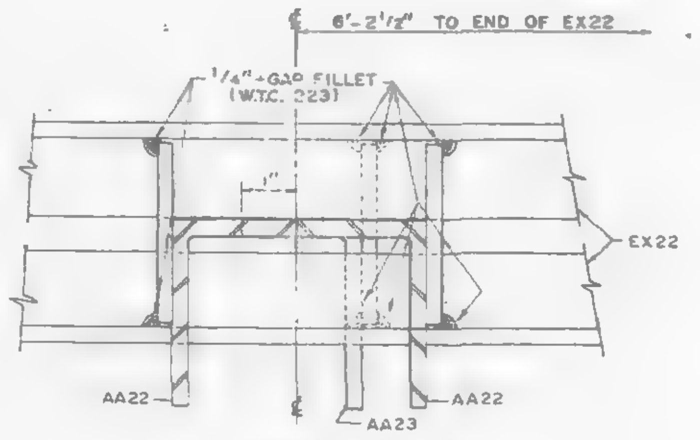
SECTION A-A



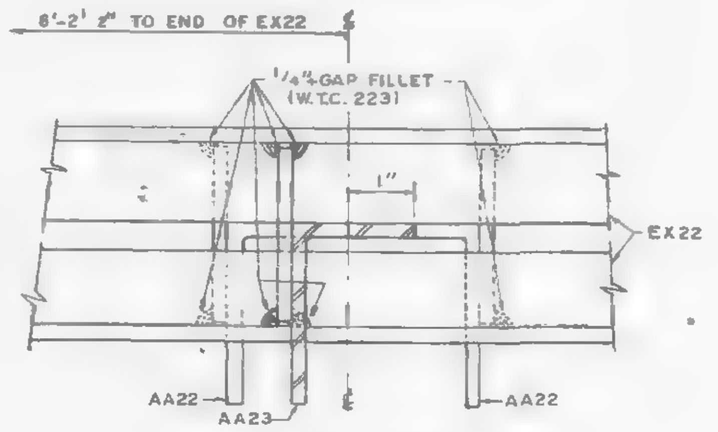
DETAIL "A"



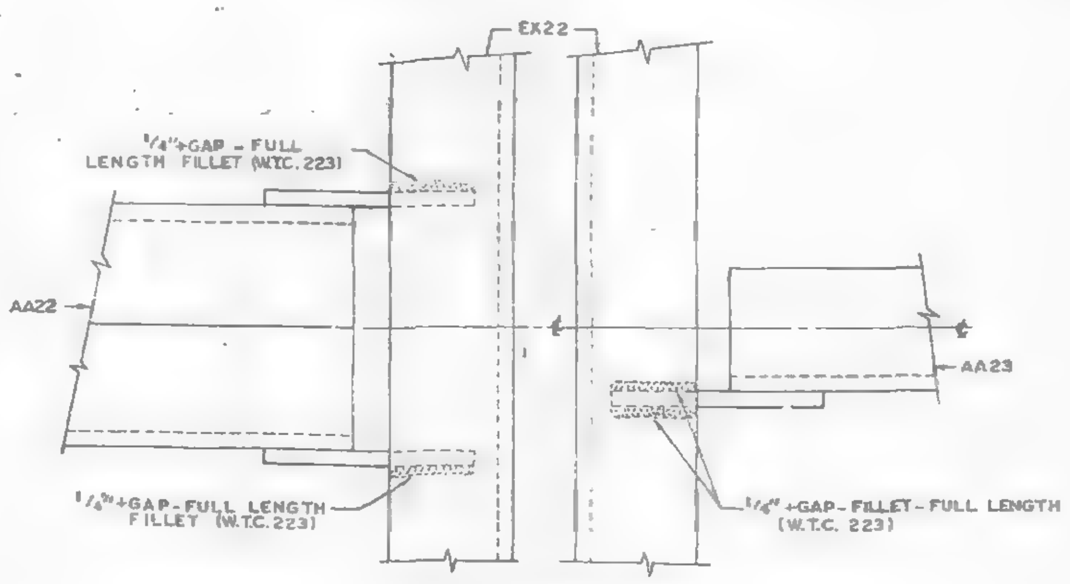
INTERIOR BRIDGING ANGLE CONNECTION (3-XB)
PANELS: F2 & FR2*
△2



SECTION B-B △2



SECTION C-C △2



TOP VIEW △2

* OPP. HAND FOR FR2 PANEL-AA23R REPLACES AA23.

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
SEE SHEET CD 211 FOR LIST OF CONNECTIONS FOR FLOORS 25, 59 & 92
SEE DETAIL "A" (THIS SHEET) FOR ALL +GAP WELDS.

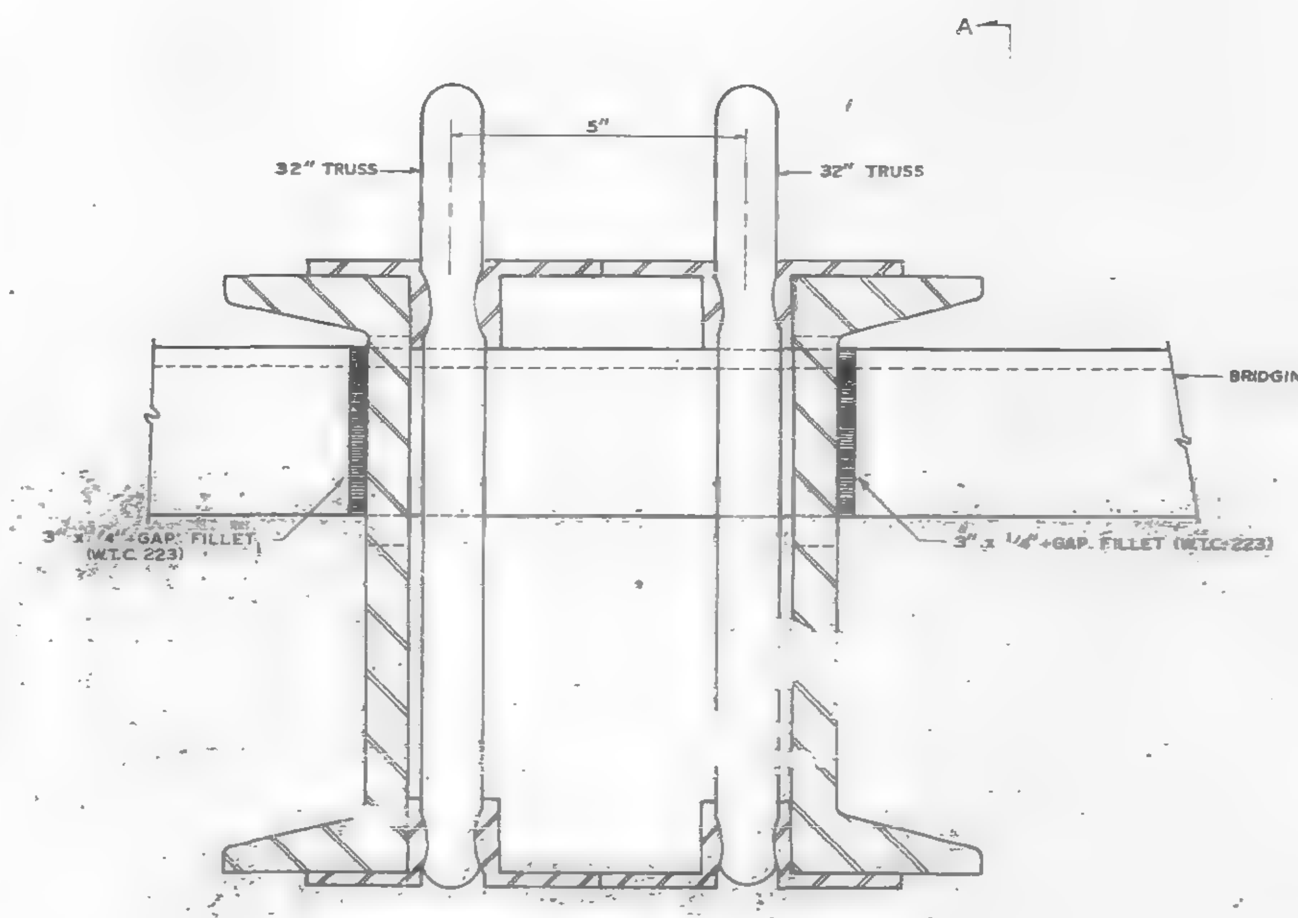
NO.	DATE	REVISION	BY
△2	6-20-69	AS NOTED	G.D.C.
△1	11-21-68	AS NOTED	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS 1-XA & 3-XB FOR FLOORS 25, 59 & 92. △2
WORLD TRADE CENTER TOWERS A & B.

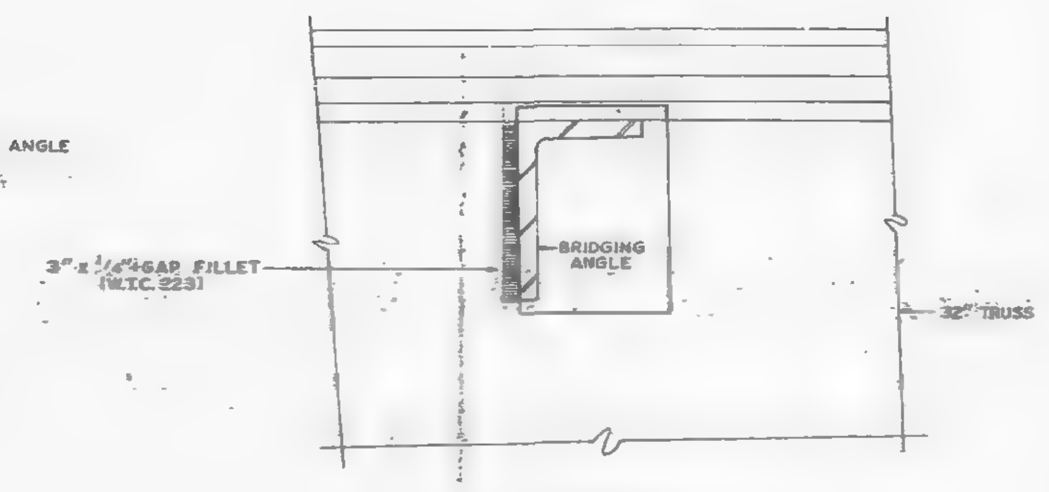
FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A.	DATE 7/2/69	DRAWN BY: gdc DATE NOV. 6, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE NOV. 6, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER		FABRICATION CONT. NO W.T.C. 221	SHEET NO. CD 217

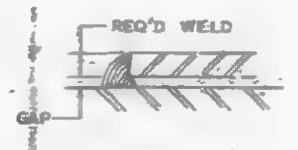


INTERIOR BRIDGING ANGLE CONNECTION (3-X)

(1) PANELS: J2, H2, H7, H8Z, HR7, G2 & GR7. GR2



SECTION A-A



DETAIL "A"

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
SEE SHEET CD 211 FOR LIST OF CONNECTIONS FOR FLOORS 25, 59 & 92.
SEE DETAIL "A" (THIS SHEET) FOR ALL +GAP WELDS.

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
APPROVED
X APPROVED AS NOTED
AS BUILT
REJECTED
Date 12/4/68 SK

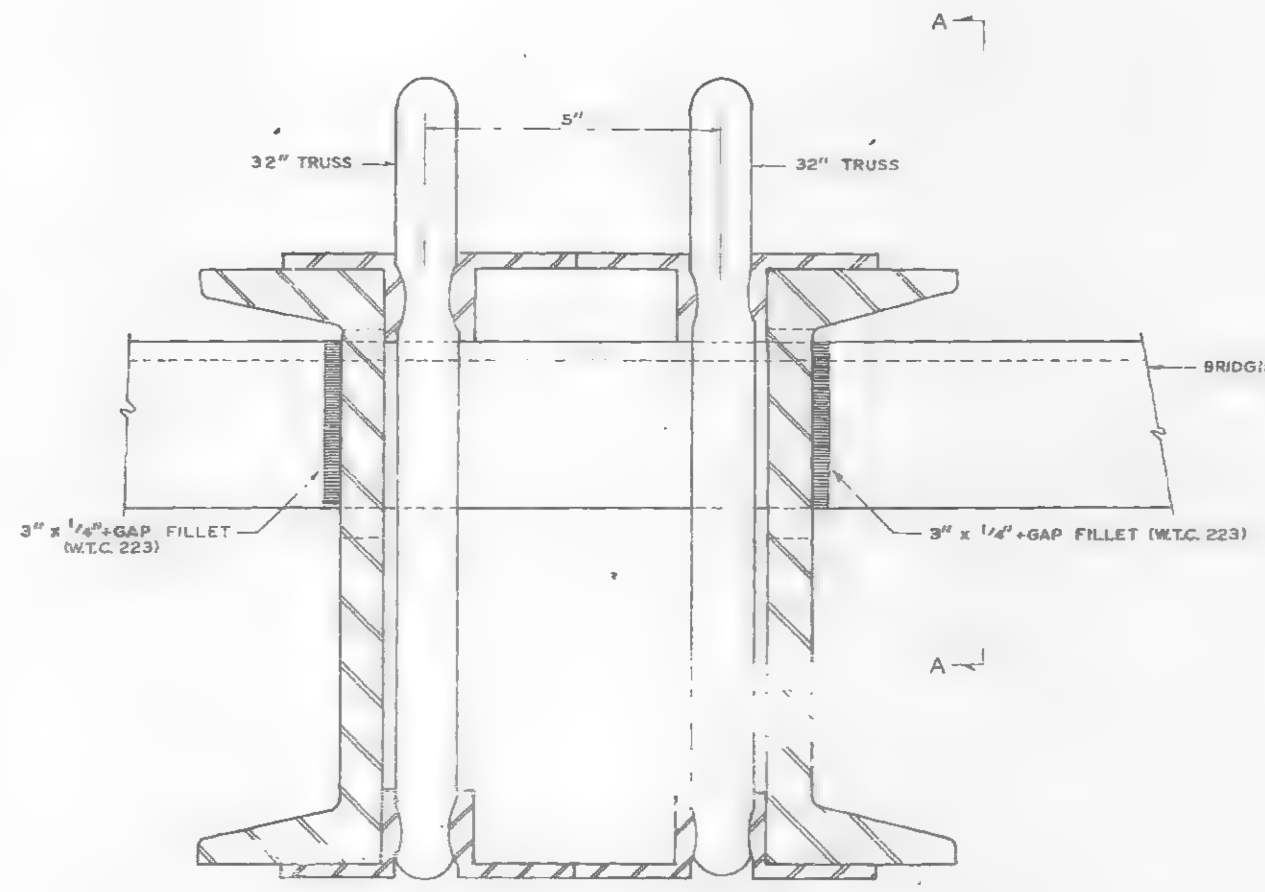
NO.	DATE	REVISION	BY
(1)	11-21-68	AS NOTED	G.D.C.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

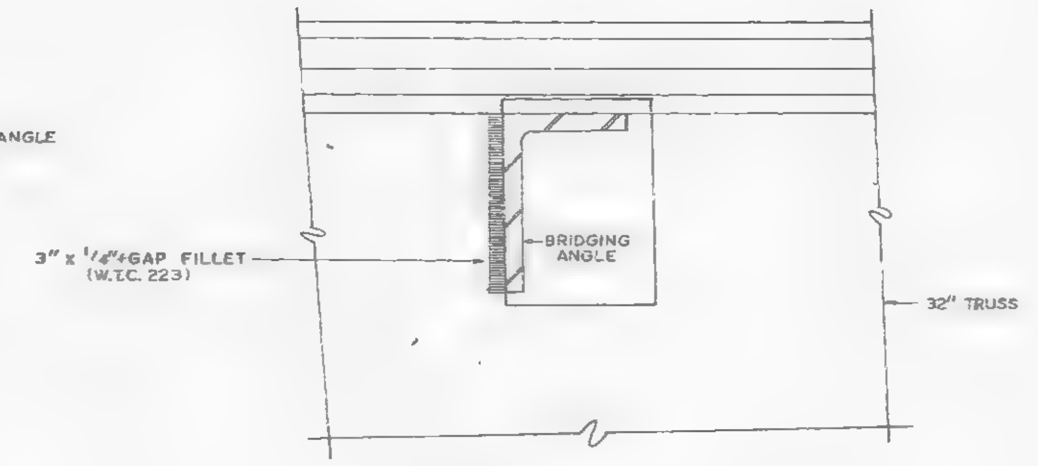
CONNECTION DETAILS 3-X FOR FLOORS 25, 59 & 92.
WORLD TRADE CENTER TOWERS A & B.

FABRICATION BY: LACLEDE STEEL COMPANY

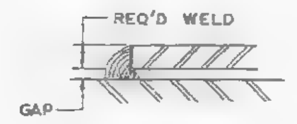
FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE	DRAWN BY: gdc DATE NOV. 6, 1968	
APPROVED FOR FABRICATION BY: LACLEDE FOR FABRICATOR DATE	CHECKED BY: T.M.CHURA DATE NOV. 6, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 217



INTERIOR BRIDGING ANGLE CONNECTION (3-X)
PANELS: J2, H7, HR2, G2, AND GR2.
H2 & HR7



SECTION A-A



DETAIL "A"

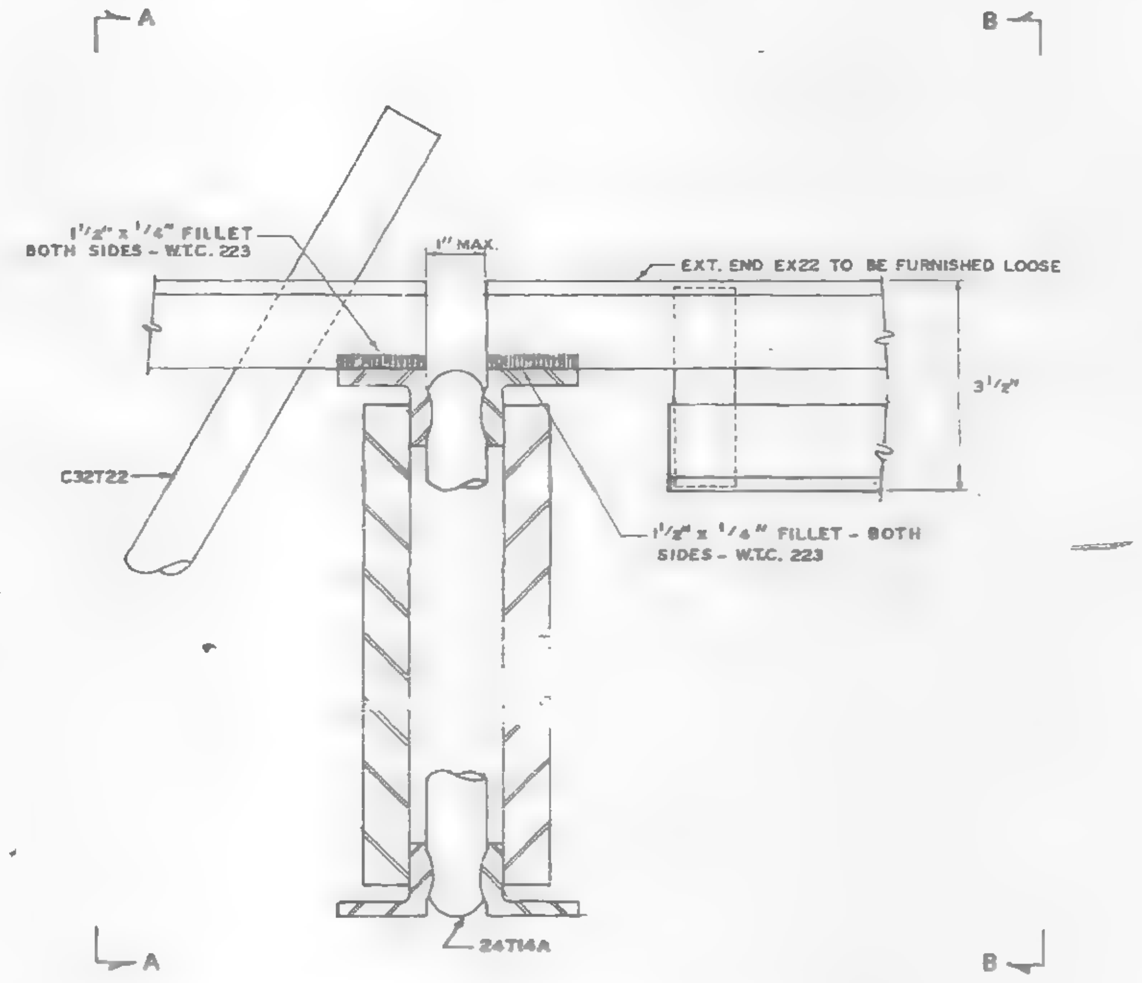
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
SEE SHEET CD 211 FOR LIST OF CONNECTIONS FOR FLOORS 25, 59 & 92.
SEE DETAIL "A" (THIS SHEET) FOR ALL +GAP WELDS.

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
11/15/68 SK

CONNECTION DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

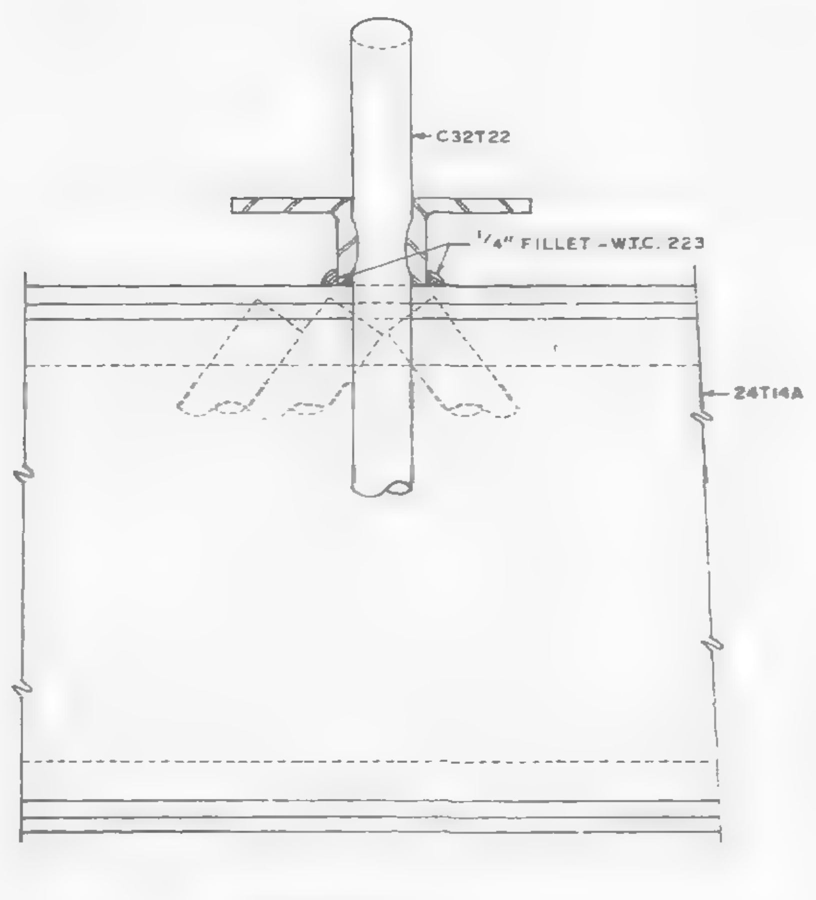
CONNECTION DETAILS 3-X FOR FLOORS 25, 59 & 92.
WORLD TRADE CENTER TOWERS A & B.

FABRICATION BY: LACLEDE STEEL COMPANY		
FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. — DATE	DRAWN BY: gdc DATE NOV. 6, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR — DATE	CHECKED BY: T.M.CHURA DATE NOV. 6, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A. CARL WEBER	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 217

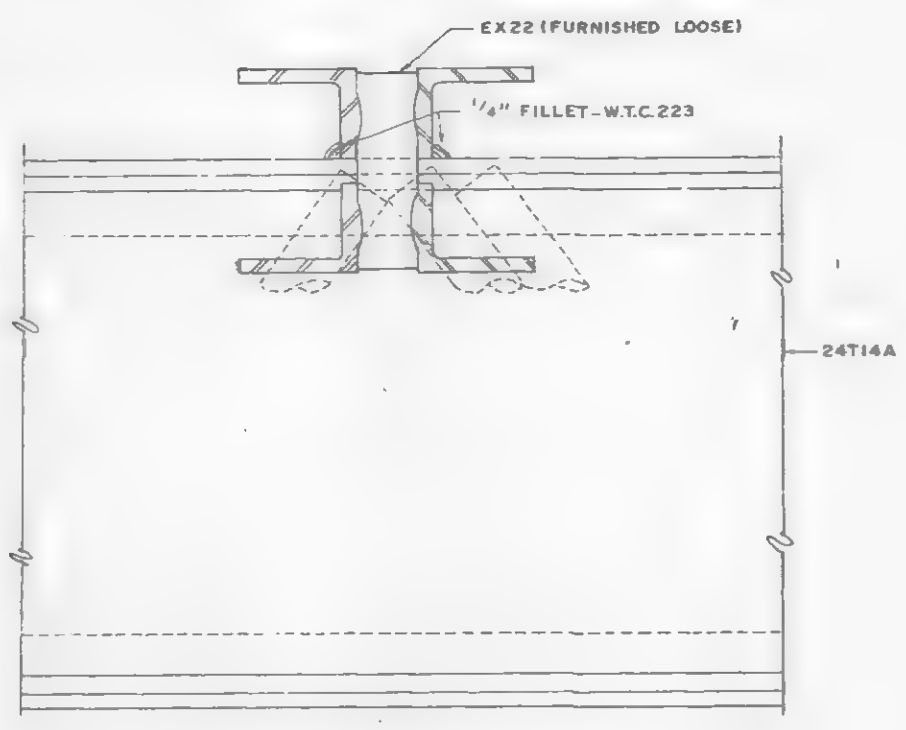


INTERIOR BRIDGING TRUSS CONNECTION (5-X)

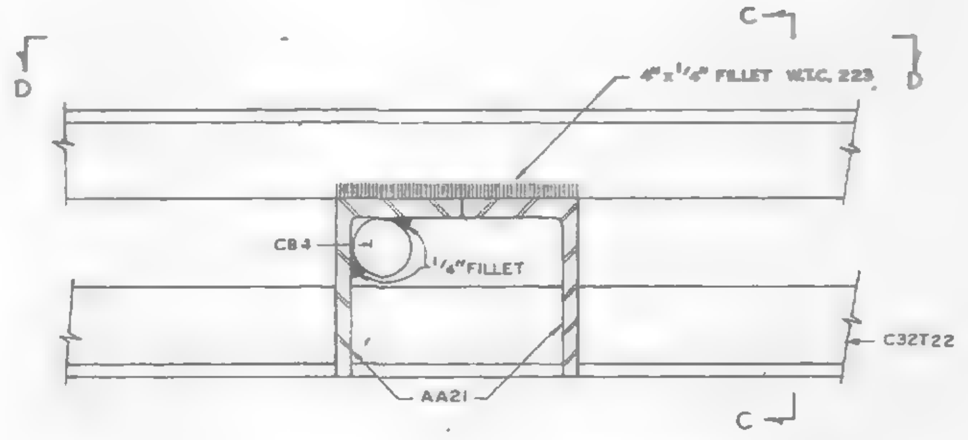
24T14A TO C32T22 IN PANELS F2 & FR2



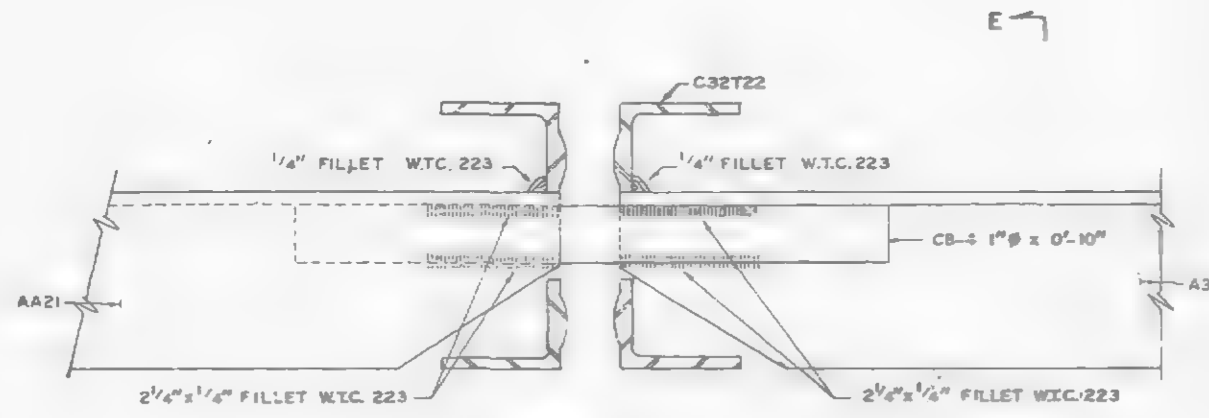
SECTION A-A



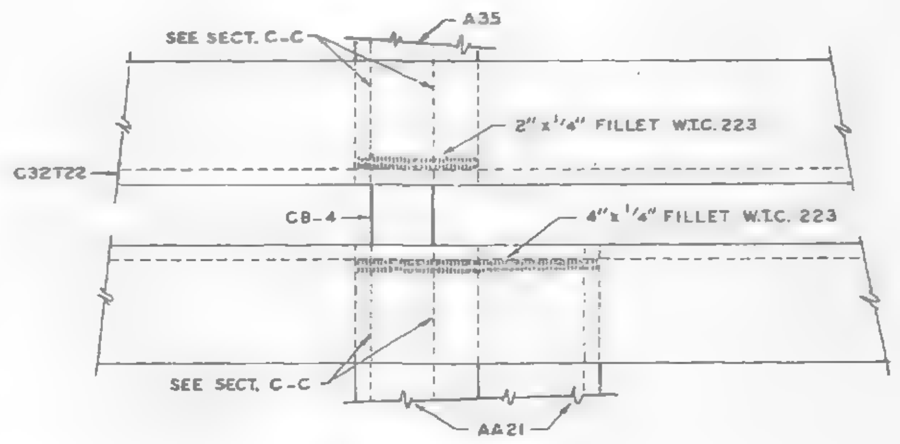
SECTION B-B



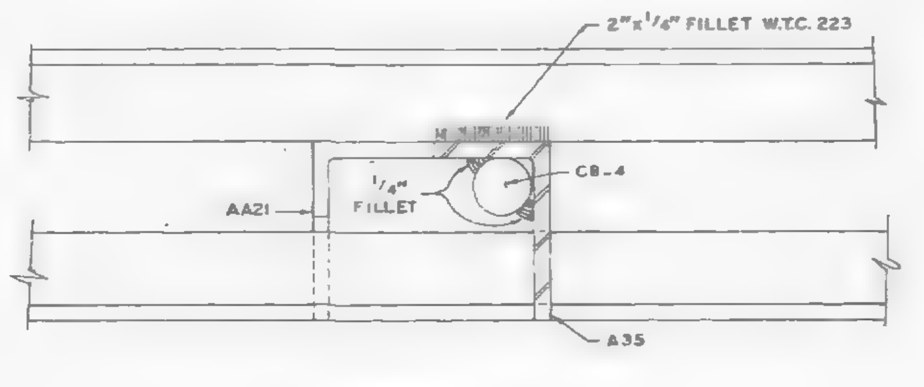
INTERIOR BRIDGING ANGLE CONNECTION (3-XA) △1



SECTION C-C △1



SECTION D-D △1



SECTION E-E △1

NO.	DATE	REVISION	BY
△1	1-9-69	AS NOTED	G.D.C.

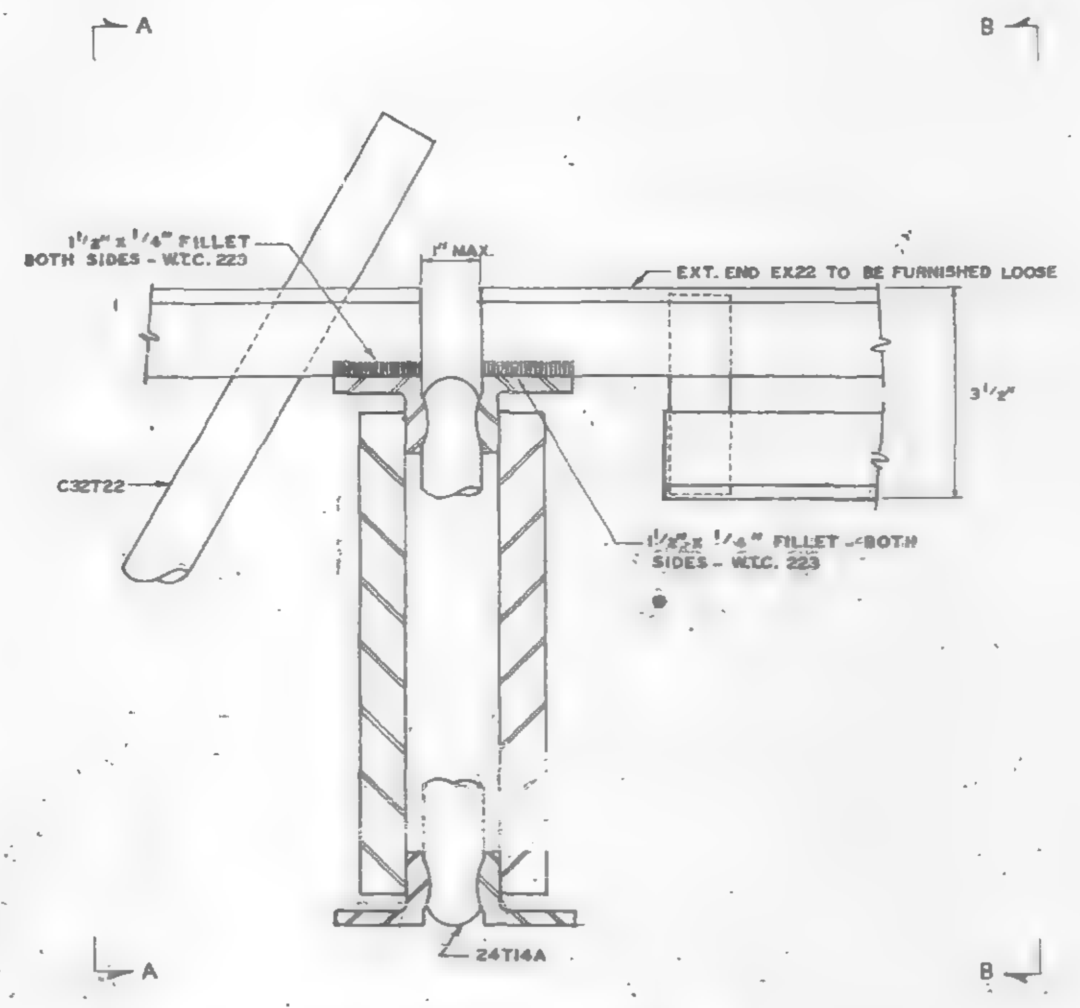
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 5-X & 3-XA FOR FLOORS 25, 59 & 92.
WORLD TRADE CENTER TOWERS A & B

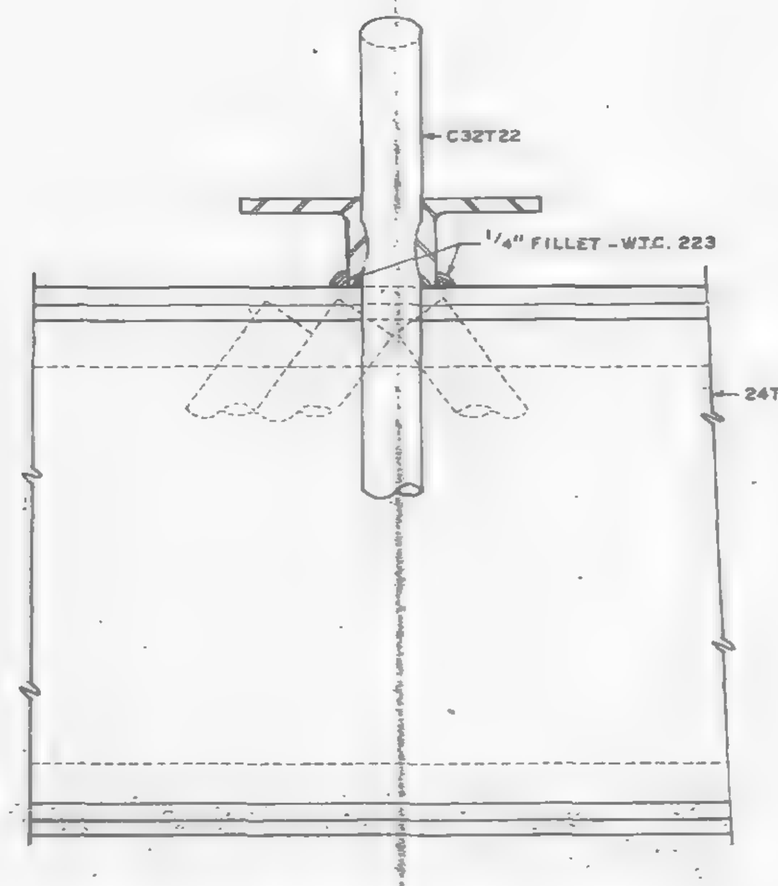
FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-57	PLATE
APPROVED FOR FABRICATION BY: [signature] FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY: G.D.C. DATE NOV. 18, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE NOV. 18, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 218

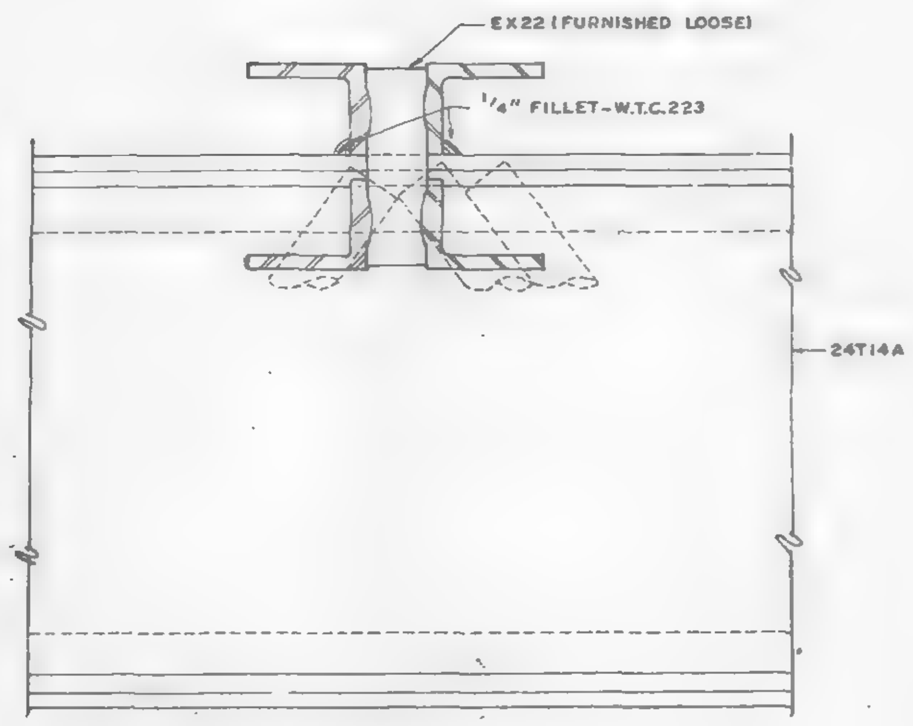


INTERIOR BRIDGING TRUSS CONNECTION (5-X)

24T14A TO C32T22 IN PANELS F2 & FR2



SECTION A-A



SECTION B-B

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
SEE SHEET CD 211 FOR CONNECTION IDENTIFICATION LIST FOR FLOORS 25, 59 & 92.

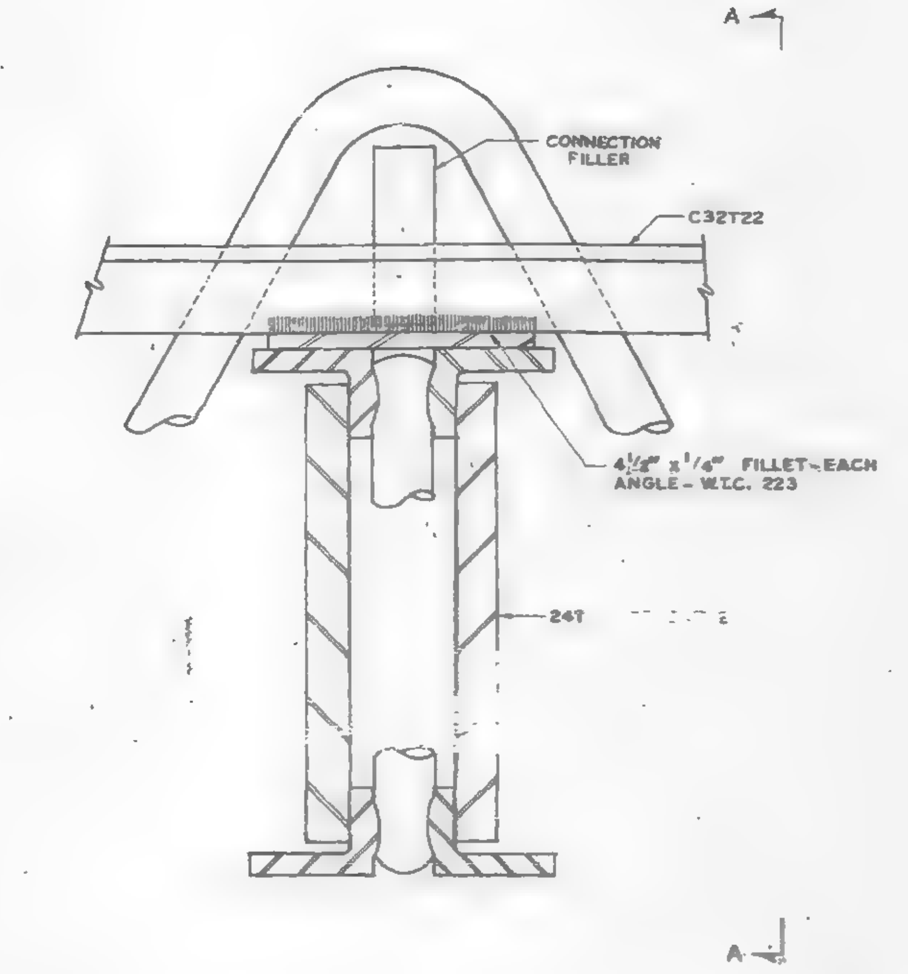
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.

THE PORT OF NEW YORK AUTHORITY

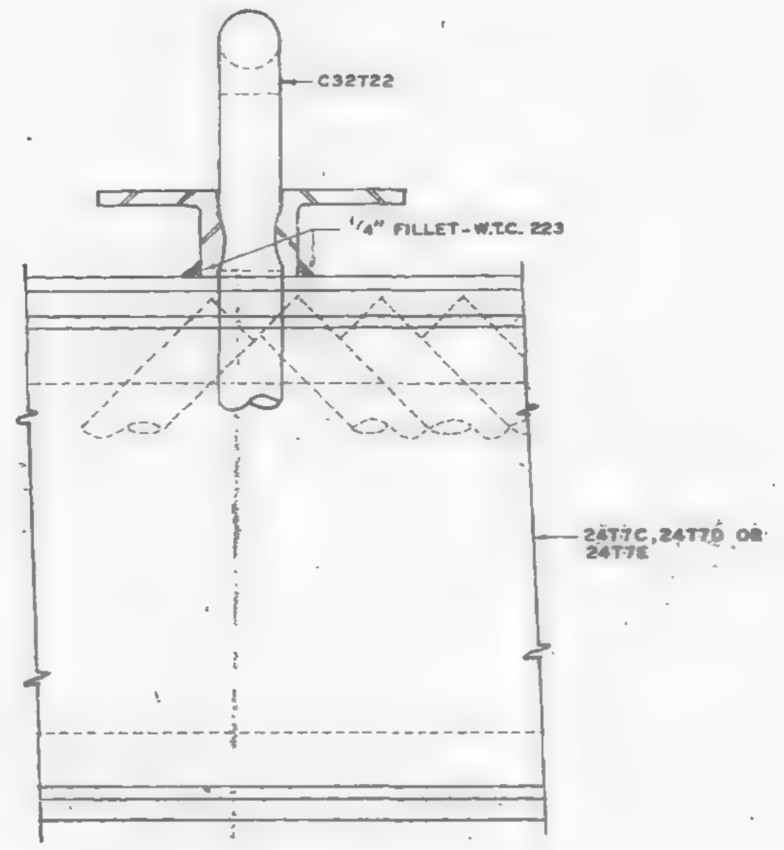
CONNECTION DETAIL 5-X FOR FLOORS 25, 59 & 92.
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A64-57	PLATE
APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A.	DATE 12/6/68	DRAWN BY: G.D.C. DATE NOV. 18, 1968	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE NOV. 18, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: CARL WEBER (LACLEDE STEEL CO.)		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 218

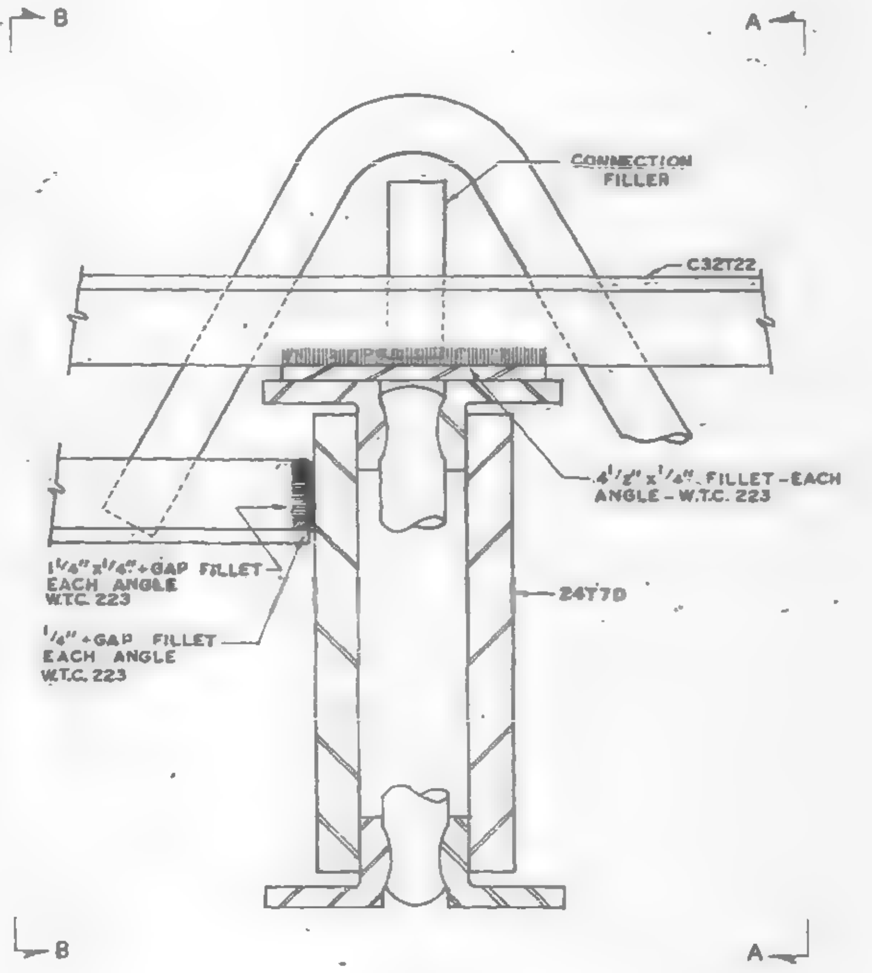


INTERIOR BRIDGING TRUSS CONNECTION 6-X

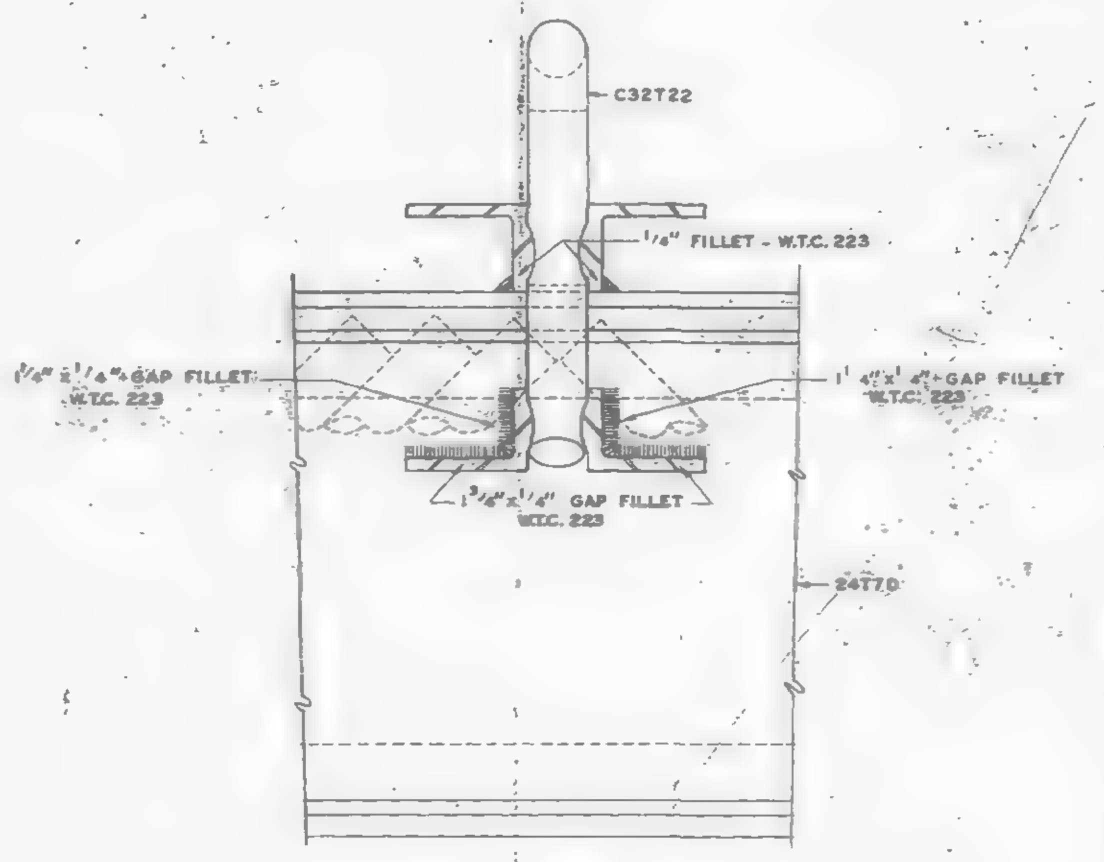


SECTION A-A

DETAIL "A"



INTERIOR BRIDGING TRUSS CONNECTION 6-XA



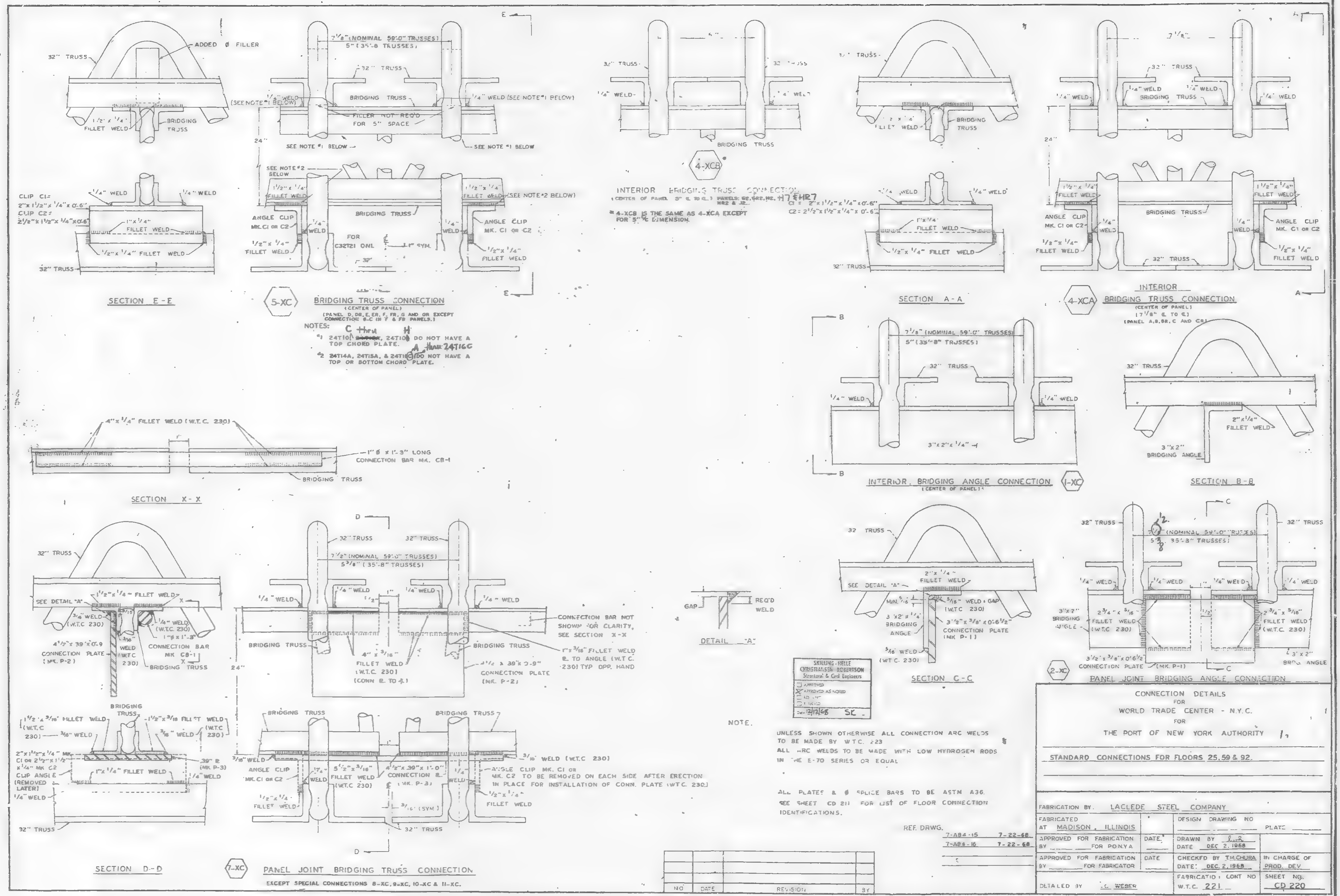
SECTION B-B

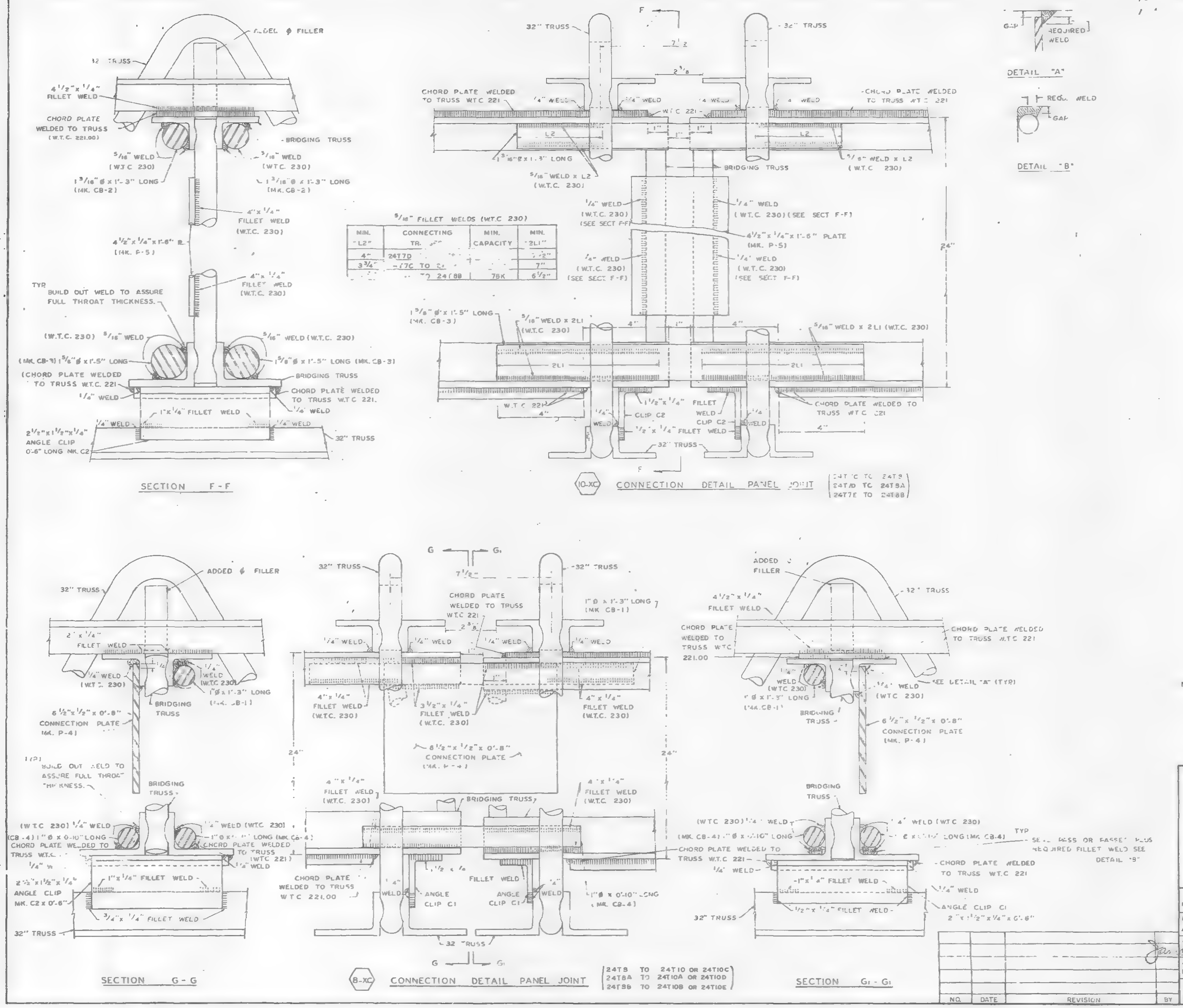
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
SEE SHEET CD 211 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS FOR FLOORS 25, 59 & 92.
SEE DETAIL A, THIS SHEET, FOR ALL +GAP FILLET WELDS.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER. - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS 6-X & 6-XA FOR FLOORS 25, 59 & 92
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY		
FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO. 7-A84-59	PLATE
APPROVED FOR FABRICATION BY: [signature] FOR P.O.N.Y.A. DATE 12/6/68	DRAWN BY: G.D.C. DATE NOV. 19, 1968	
APPROVED FOR FABRICATION BY. FOR FABRICATOR DATE	CHECKED BY: T.M.CHURA DATE NOV. 19, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY: A CARL WEBER	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 219


SECTION E-E
5-XC BRIDGING TRUSS CONNECTION
(CENTER OF PANEL)
NOTES:
#1 24T10, 24T10 DO NOT HAVE A TOP CHORD PLATE.
#2 24T14A, 24T15A, & 24T16 DO NOT HAVE A TOP OR BOTTOM CHORD PLATE.
4-XCB INTERIOR BRIDGING TRUSS CONNECTION
4-XCB IS THE SAME AS 4-XCA EXCEPT FOR 5" DIMENSION.
SECTION A-A
4-XCA INTERIOR BRIDGING TRUSS CONNECTION
(CENTER OF PANEL)
SECTION X-X
1-XC INTERIOR BRIDGING ANGLE CONNECTION
(CENTER OF PANEL)
SECTION B-B
SECTION D-D
7-XC PANEL JOINT BRIDGING TRUSS CONNECTION
EXCEPT SPECIAL CONNECTIONS 8-XC, 9-XC, 10-XC & 11-XC.
DETAIL "A"
SECTION C-C
2-XC PANEL JOINT BRIDGING ANGLE CONNECTION
NOTE.
UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
ALL PLATES & Ø SPLICE BARS TO BE ASTM A36.
SEE SHEET CD 211 FOR LIST OF FLOOR CONNECTION IDENTIFICATIONS.
REF. DRWG.
7-AB4-15 7-22-68
7-AB4-16 7-22-68
SKILLING, HELLE, CHRISTIANSEN, ROBERTSON
Structural & Civil Engineers
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
STANDARD CONNECTIONS FOR FLOORS 25, 59 & 92.
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A
DATE
DRAWN BY
DATE DEC. 2, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
CHECKED BY T.M. CHURA
DATE DEC. 2, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT NO W.T.C. 221
SHEET NO. CD 220
DETAILED BY C. WEBER
NO DATE REVISION BY



REF. DRWG.

7-AB4-18	7-22-68
7-AB4-18.1	7-22-68

NOTE.
1. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS TO BE MADE BY W.T.C. 223.
2. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
3. ALL PLATES & ϕ SPLICE BARS TO BE ASTM A36

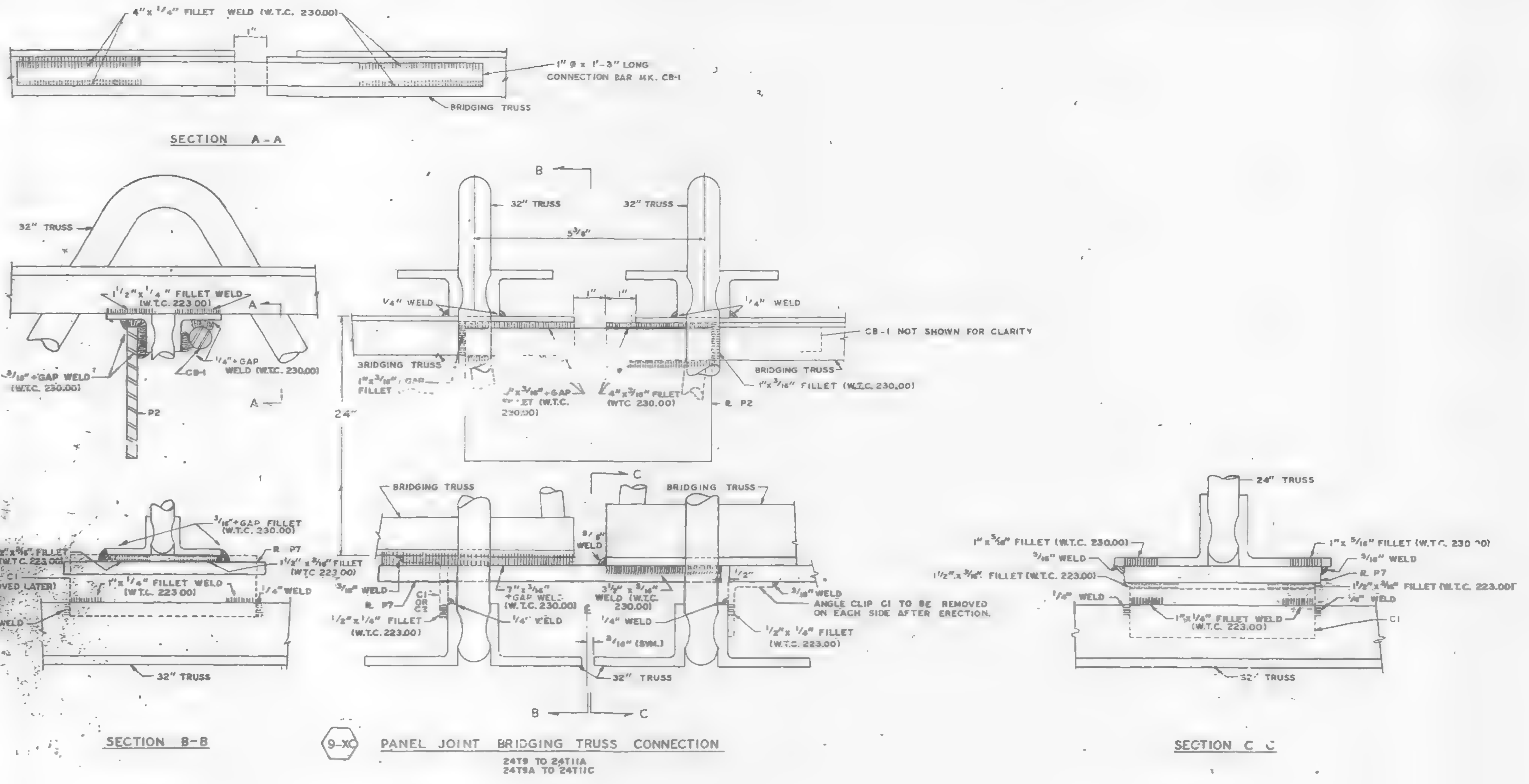
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

STANDARD CONNECTION DETAILS 8-XC & 10-XC

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO	PLATE
APPROVED FOR FABRICATION BY ___ FOR P.O.N.Y.A	DATE 1/31/69	DRAWN BY ___ DATE: JAN. 13, 1969	
APPROVED FOR FABRICATION BY ___ FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE: JAN. 13, 1969	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT NO W.T.C. 221	SHEET NO CD 221

NO.	DATE	REVISION	BY



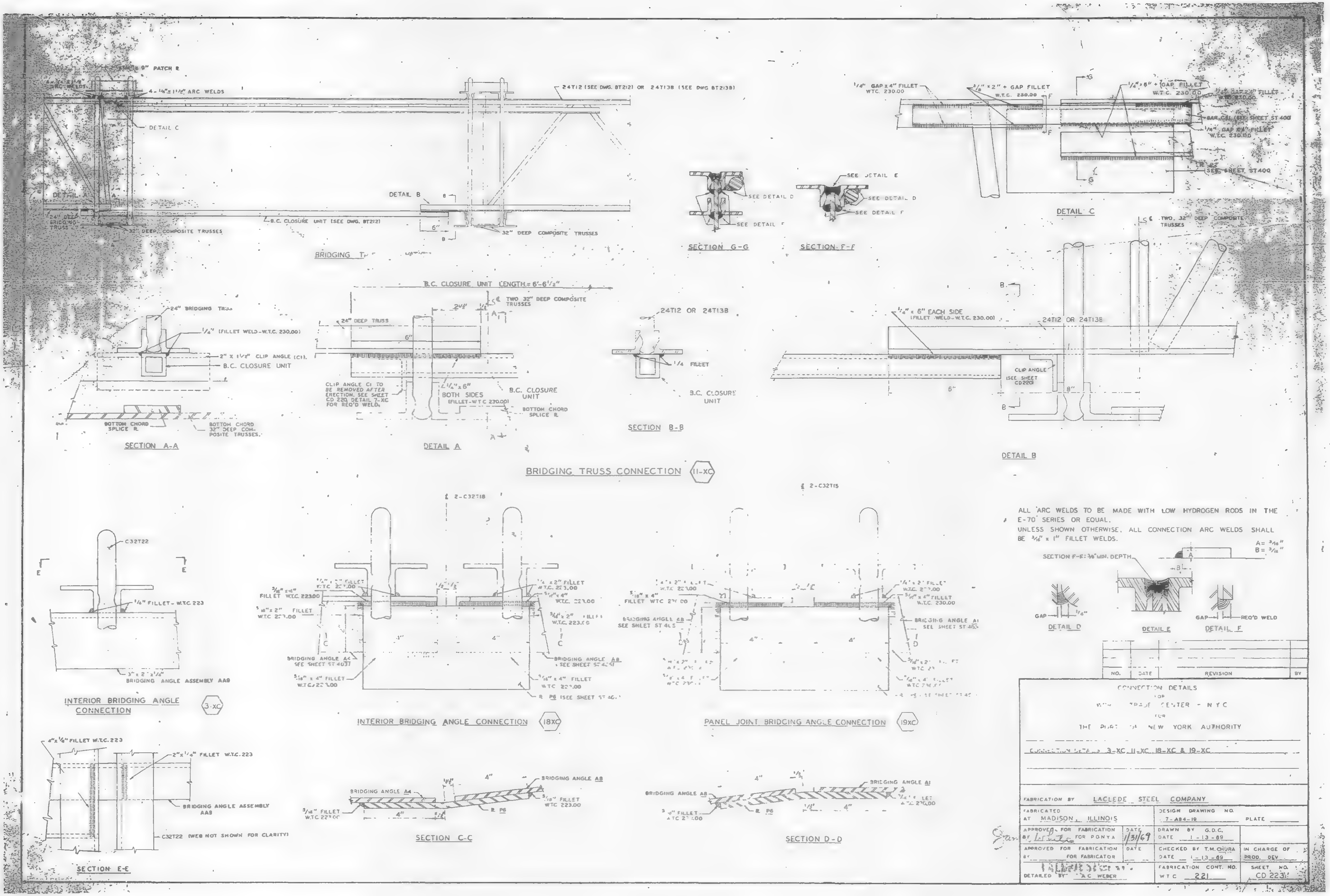
FOR NOTES SEE SHEET CD220.

NO.	DATE	REVISION	BY

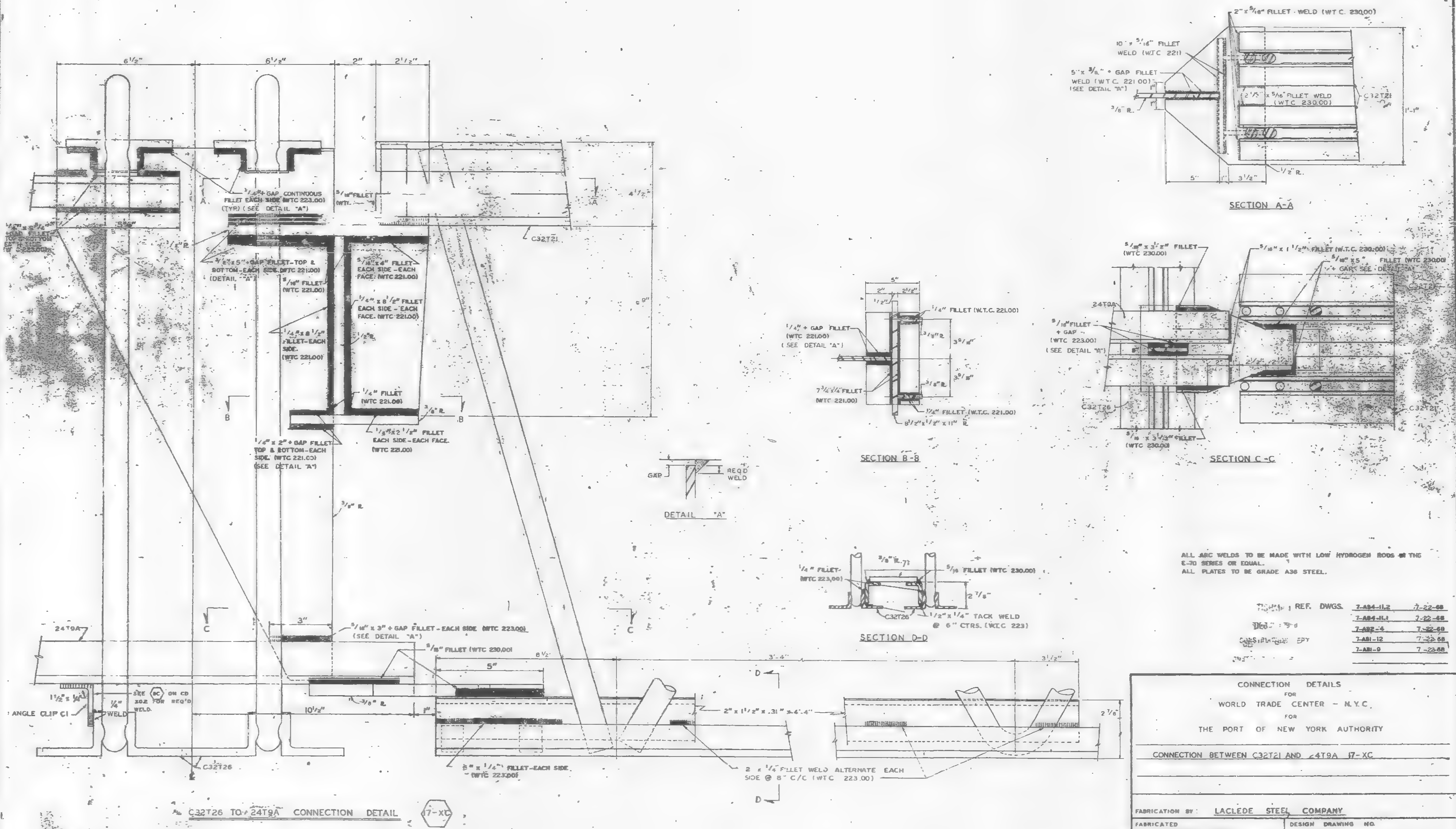
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 9-XC

FABRICATION BY LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE -
APPROVED FOR FABRICATION BY FOR PONYA	DATE 1/31/69	DRAWN BY: gdc DATE JAN. 13, 1969	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M.CHURA DATE JAN. 13, 1969	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER (LACLEDE STEEL CO.)		FABRICATION CONT NO. WTC 221	SHEET NO. CD 222



24T12 (SEE DWG. BT212) OR 24T138 (SEE DWG BT2138)
4 - 1/4" x 1 1/2" ARC WELDS
9" PATCH R
DETAIL C
DETAIL B
B.C. CLOSURE UNIT (SEE DWG. BT212)
32" DEEP COMPOSITE TRUSSES
32" DEEP COMPOSITE TRUSSES
SEE DETAIL D
SEE DETAIL F
SEE DETAIL E
SECTION G-G
SECTION F-F
DETAIL C
SEE SHEET ST400
B.C. CLOSURE UNIT LENGTH = 6'-6 1/2"
TWO 32" DEEP COMPOSITE TRUSSES
24" BRIDGING TRUSS
1/4" (FILLET WELD - W.T.C. 230.00)
2" x 1 1/2" CLIP ANGLE (C1)
B.C. CLOSURE UNIT
BOTTOM CHORD SPLICE R
BOTTOM CHORD 32" DEEP COMPOSITE TRUSSES
SECTION A-A
24" DEEP TRUSS
CLIP ANGLE C1 TO BE REMOVED AFTER ERECTION. SEE SHEET CD 220, DETAIL 7-XC FOR REQ'D WELD.
1/4 x 6" BOTH SIDES (FILLET - W.T.C. 230.00)
B.C. CLOSURE UNIT
BOTTOM CHORD SPLICE R
DETAIL A
24T12 OR 24T138
1/4 FILLET
B.C. CLOSURE UNIT
SECTION B-B
1/4" x 6" EACH SIDE (FILLET WELD - W.T.C. 230.00)
24T12 OR 24T138
CLIP ANGLE (SEE SHEET CD220)
TWO 32" DEEP COMPOSITE TRUSSES
DETAIL B
BRIDGING TRUSS CONNECTION
11-XC
ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE, ALL CONNECTION ARC WELDS SHALL BE 3/16" x 1" FILLET WELDS.
DETAIL D
DETAIL E
DETAIL F
REQ'D WELD
C32T22
1/4" FILLET - W.T.C. 223
3" x 2" x 1/4" BRIDGING ANGLE ASSEMBLY AA9
INTERIOR BRIDGING ANGLE CONNECTION
3-XC
2-C32T18
BRIDGING ANGLE A4 SEE SHEET ST 403
BRIDGING ANGLE A8 SEE SHEET ST 405
INTERIOR BRIDGING ANGLE CONNECTION
18XC
2-C32T15
PANEL JOINT BRIDGING ANGLE CONNECTION
19XC
4"x1/4" FILLET W.T.C. 223
2"x1/4" FILLET W.T.C. 223
BRIDGING ANGLE ASSEMBLY AA9
C32T22 (WEB NOT SHOWN FOR CLARITY)
SECTION E-E
BRIDGING ANGLE A4
BRIDGING ANGLE A8
SECTION C-C
BRIDGING ANGLE A8
BRIDGING ANGLE A1
SECTION D-D
NO. | DATE | REVISION | BY
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
CONNECTION DETAILS 3-XC, 11-XC, 18-XC & 19-XC
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A84-18
PLATE
APPROVED FOR FABRICATION FOR PONYA
DATE 1/31/69
DRAWN BY G.D.C. DATE 1-13-69
CHECKED BY T.M. CHURA DATE 1-13-69
IN CHARGE OF PROD. DEV.
APPROVED FOR FABRICATION FOR FABRICATOR
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. CD 223



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS OF THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

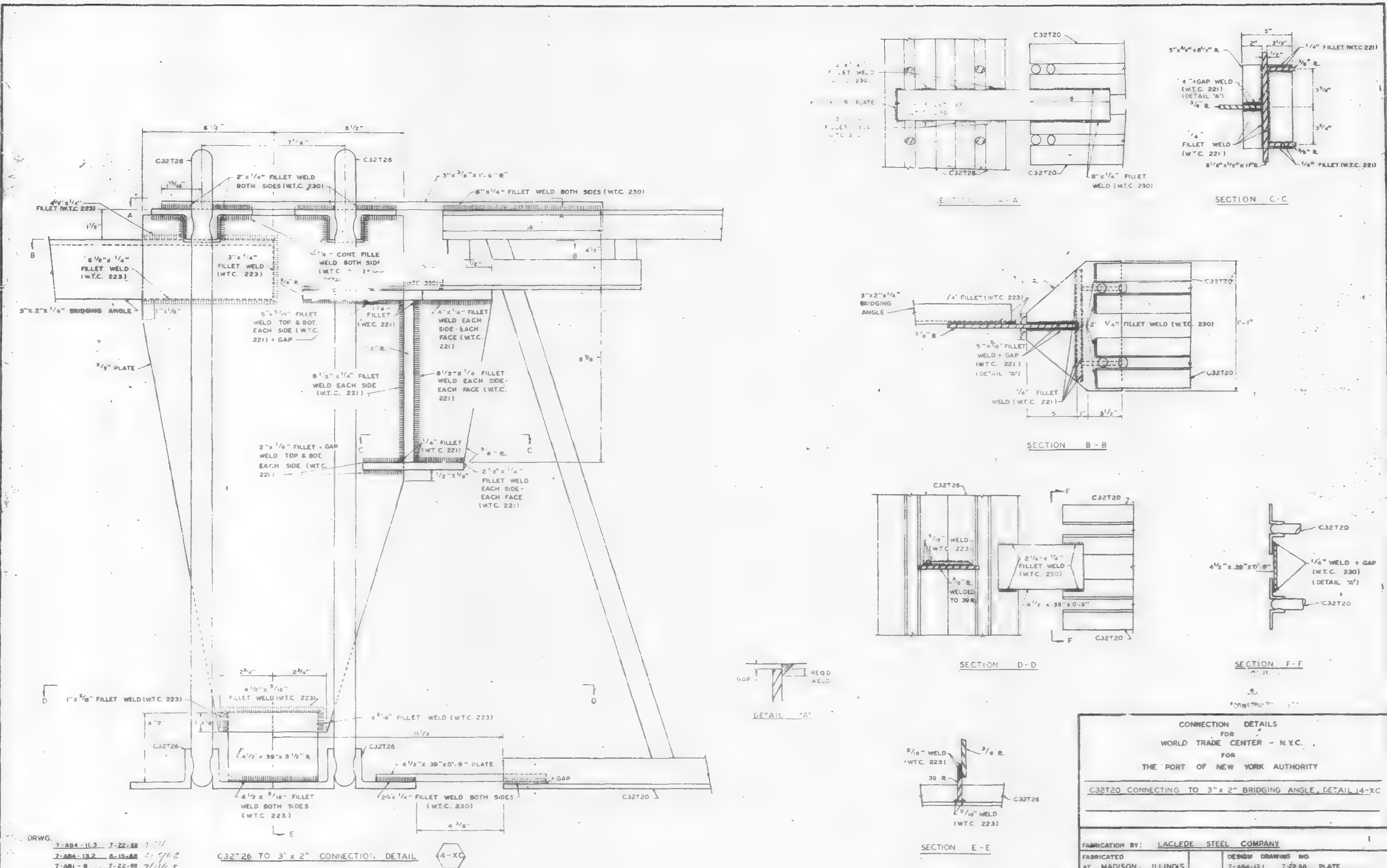
REF. DWGS.		
	7-AB4-11.2	7-22-68
	7-AB4-11.1	7-22-68
	7-AB2-4	7-22-68
	7-AB1-12	7-22-68
	7-AB1-9	7-22-68

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T21 AND 24T9A 17-XC

FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-11.2	PLATE
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY ajc DATE DEC 27 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.H.CHARA DATE DEC 27, 1968	IN CHARGE OF PROD. DEW
DETAILED BY A.C. WEBER (LACLEDE STEEL CO.)		FABRICATION CONT. NO. WTC 221	SHEET NO. CD-225

NO	DATE	REVISION	BY



DRWG.		
7-AB4-11.3	7-22-68	
7-AB4-13.2	8-15-68	
7-AB1-8	7-22-68	
7-AB1-12	7-22-68	

NOTE
1. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
2. ALL PLATES TO BE ASTM A36.

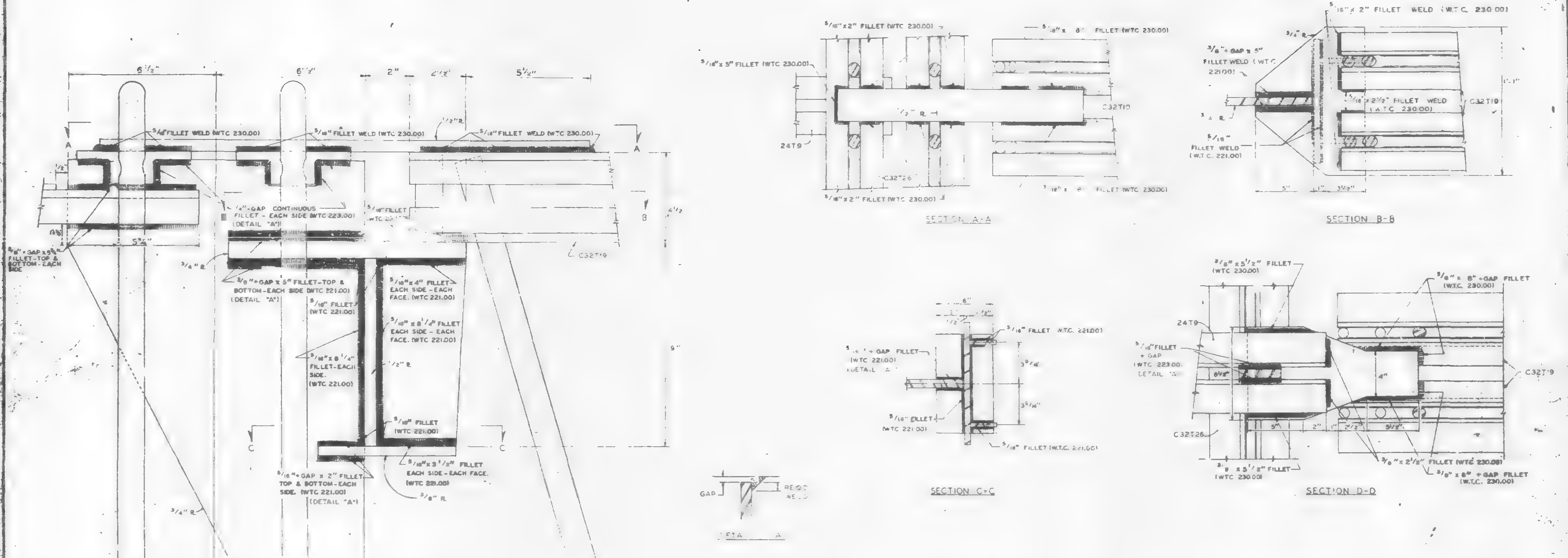
NO.	DATE	REVISION	BY

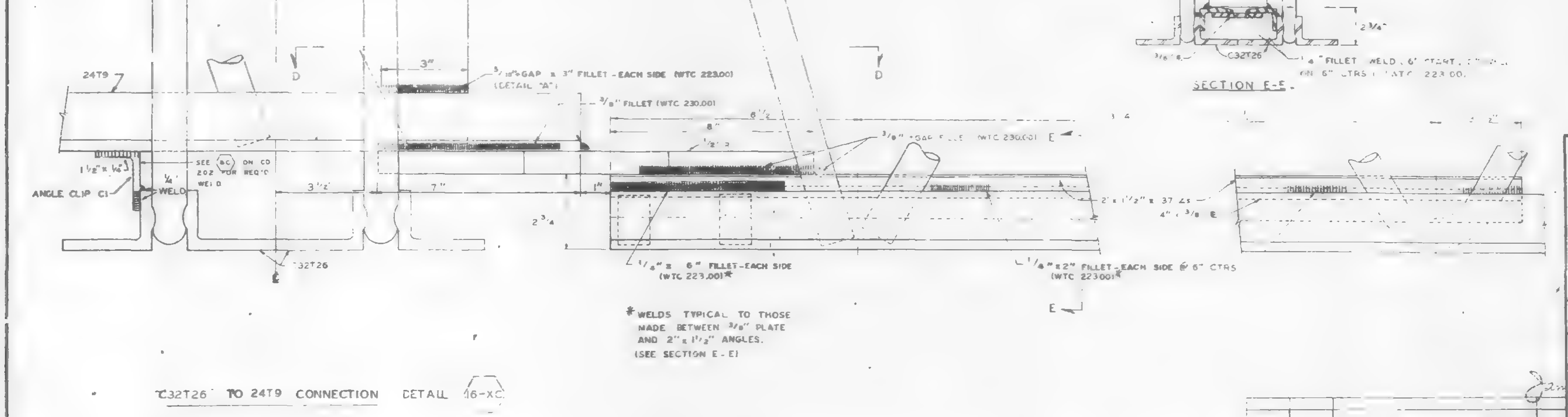
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T20 CONNECTING TO 3" x 2" BRIDGING ANGLE, DETAIL 14-XC

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-13.1 7-22-68 PLATE	
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY: DATE DEC 27, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE: DEC. 27, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. LC-226





ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
ALL PLATES TO BE GRADE A36 STEEL.

REF. DWGS.		
	7-AB4-11	7-22-68
	7-AB4-11.1	7-22-68
	7-AB1-7	7-22-69
	7-AB1-12	7-22-69
	7-AB2-4	7-22-68

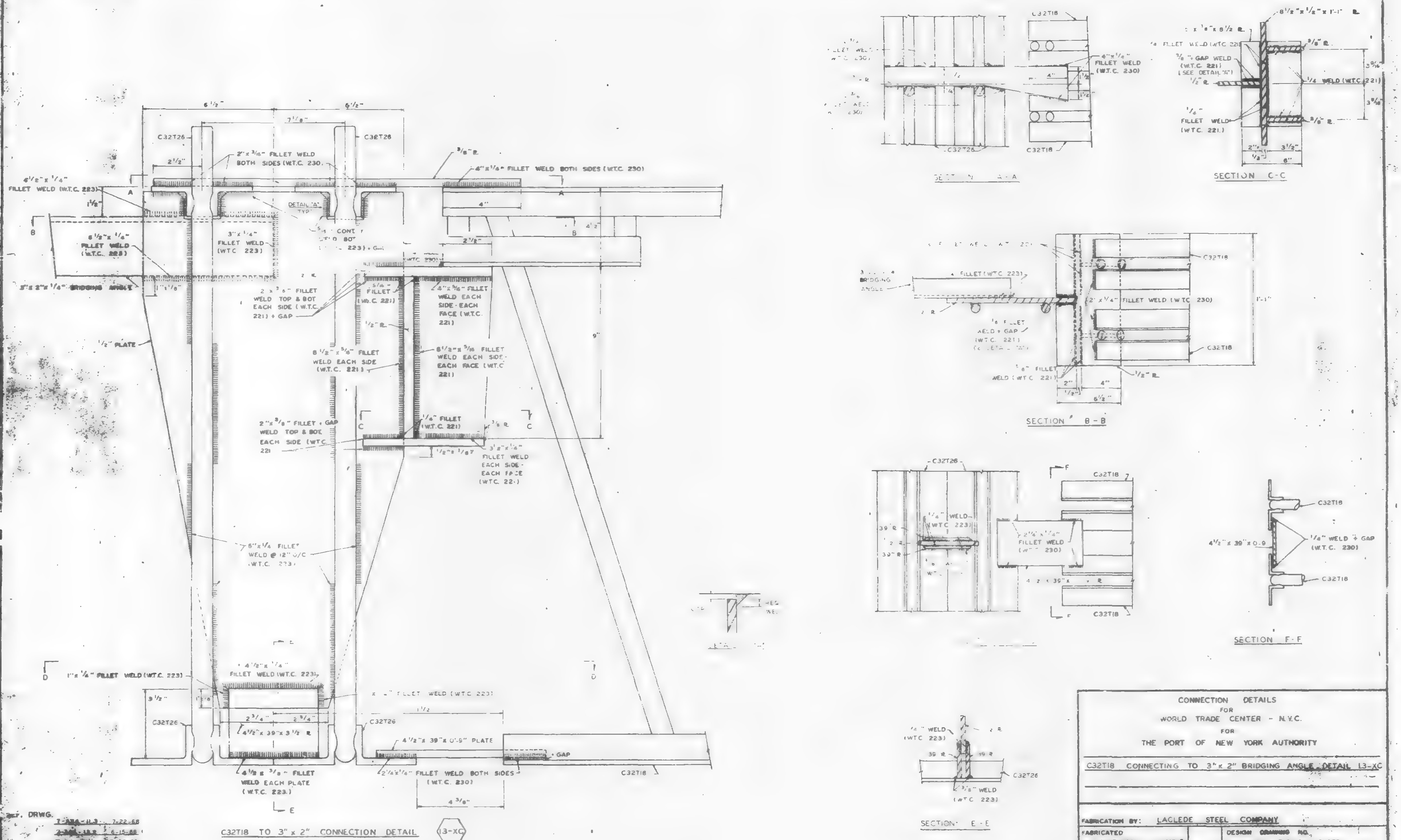
NO	DATE	REVISION	BY

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION BETWEEN C32T19 AND 24T9 16-XC

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB4-11	PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY gdc DATE DEC 27, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE DEC. 27, 1968	IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT NO WTC 221	SHEET NO. CD-227



REF. DRWG.
7-A84-13 7-22-68
6-15-68
7-22-68
7-22-68

NOTE
1 ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL
2 ALL PLATES TO BE ASTM A36

DATE REVISION BY

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

C32T18 CONNECTING TO 3" x 2" BRIDGING ANGLE DETAIL 13-XC

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-A84-13 7-22-68 PLATE	
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A.	DATE 1/31/69	DRAWN BY: [signature] DATE DEC. 27, 1968	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE DEC. 27, 1968	IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. DETAILED BY A.C. WEBER		FABRICATION CONT. NO W.T.C. 221	SHEET NO. CD-228

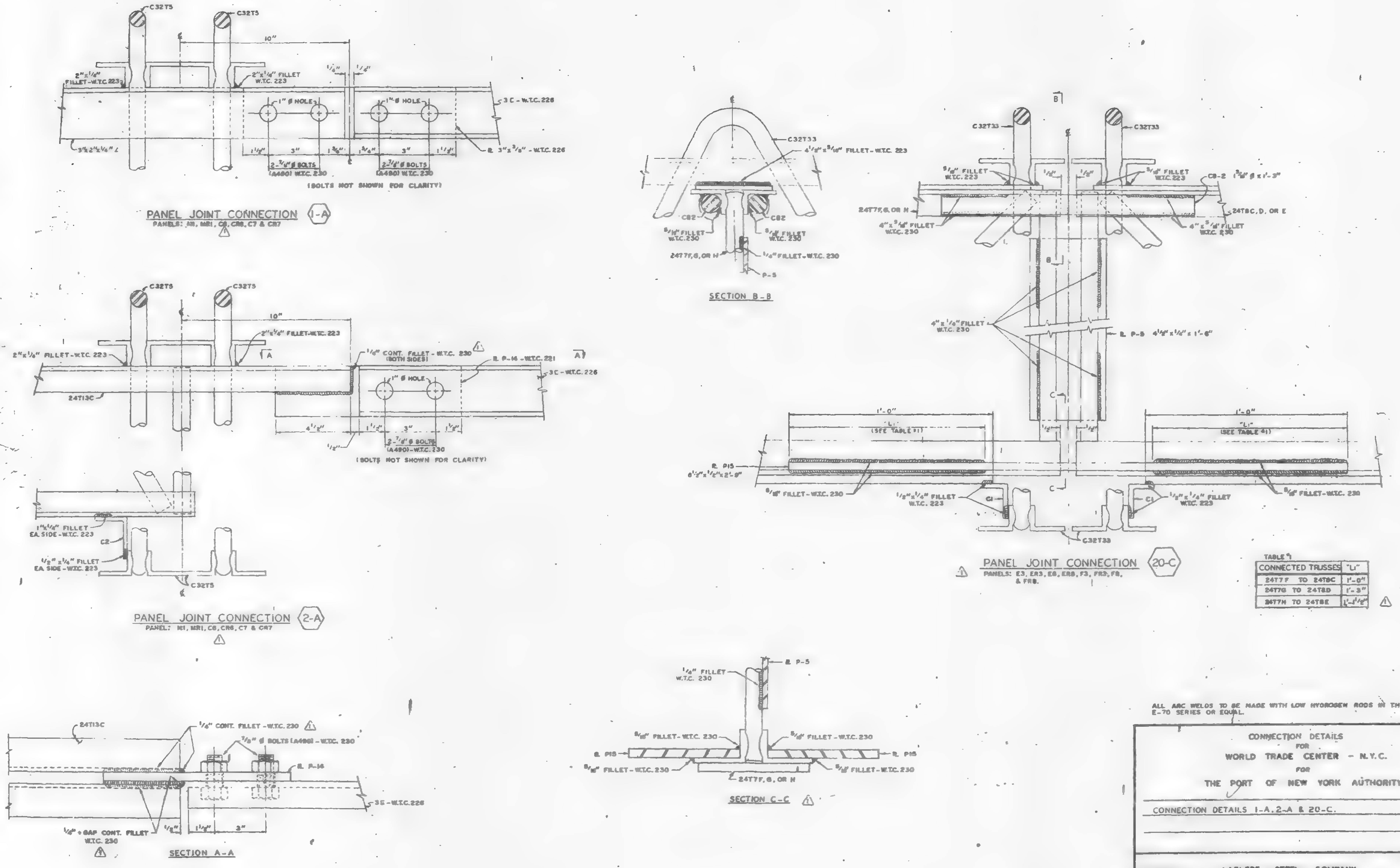


TABLE #1

CONNECTED TRUSSES	"L1"
24T7F TO 24T8C	1'-0"
24T7G TO 24T8D	1'-3"
24T7H TO 24T8E	1'-1 1/2"

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS 1-A, 2-A & 20-C.

FABRICATION BY: LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO.

PLATE

APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White — DATE 4/15/69

DRAWN BY: gc — DATE MARCH 20, 1969

APPROVED FOR FABRICATION BY: — DATE

CHECKED BY: T.H. CHURA — DATE MARCH 20, 1969

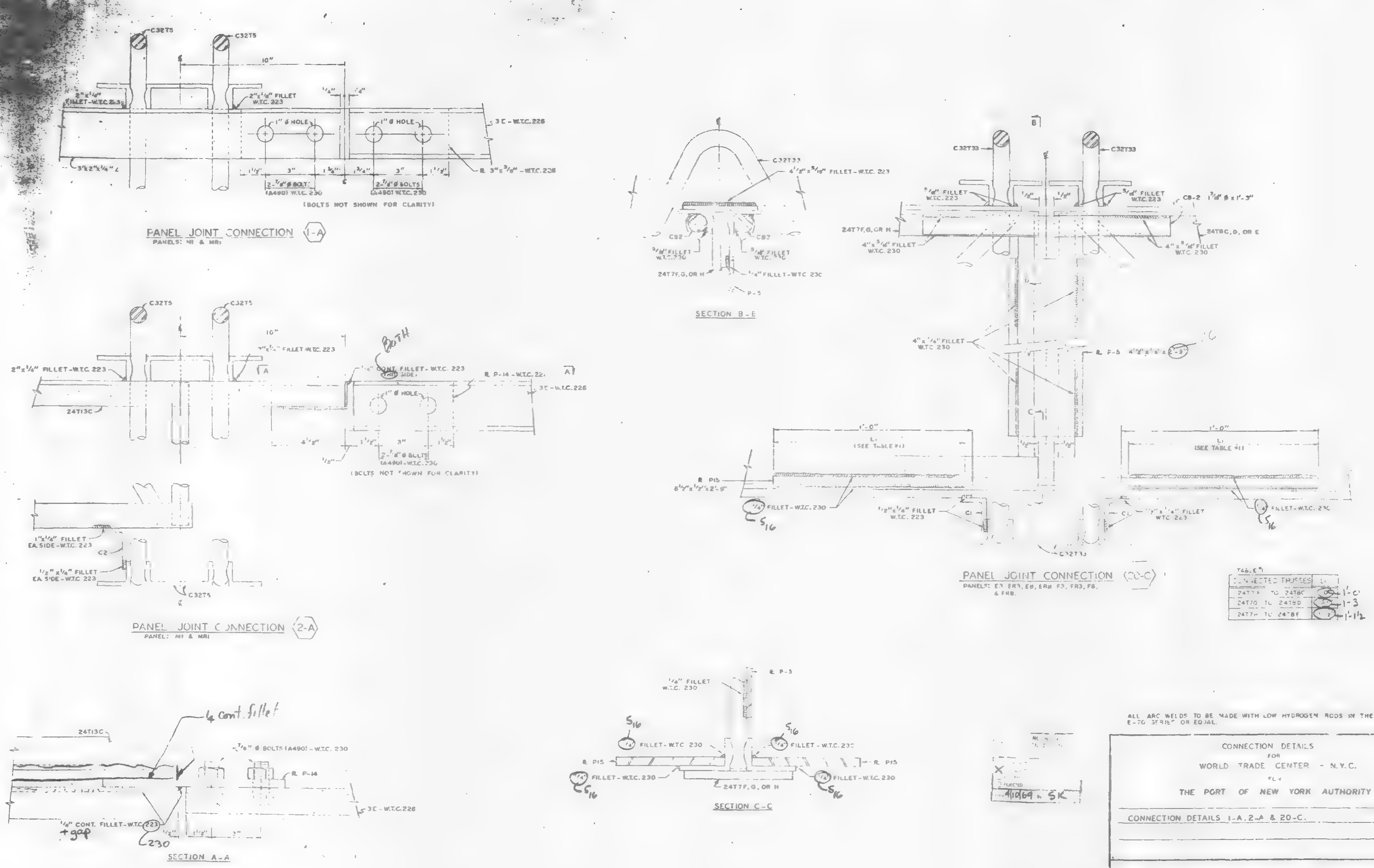
IN CHARGE OF PROD. DEV.

DETAIL... LACLEDE STEEL CO.

FABRICATION CONT. NO. W.T.C. 221

SHEET NO. CD 223

NO.	DATE	REVISION	BY
1	4-18-69	AS NOTED	G.D.C.



ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

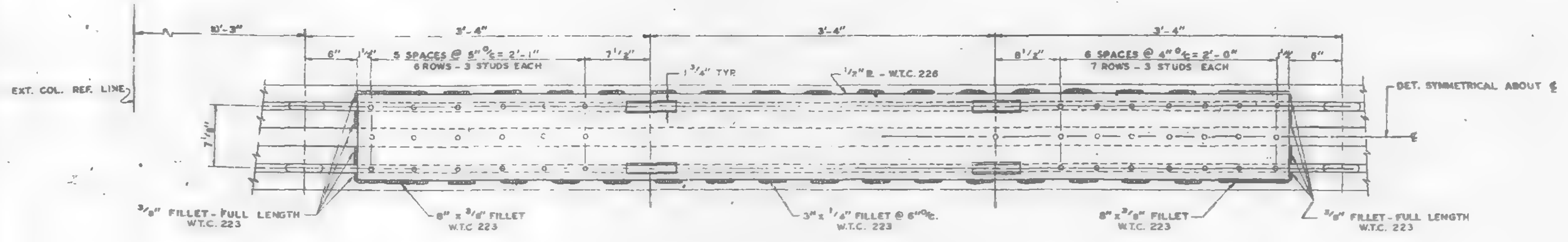
CONNECTION DETAILS 1-A, 2-A & 20-C.

FABRICATION BY LACLEDE STEEL COMPANY

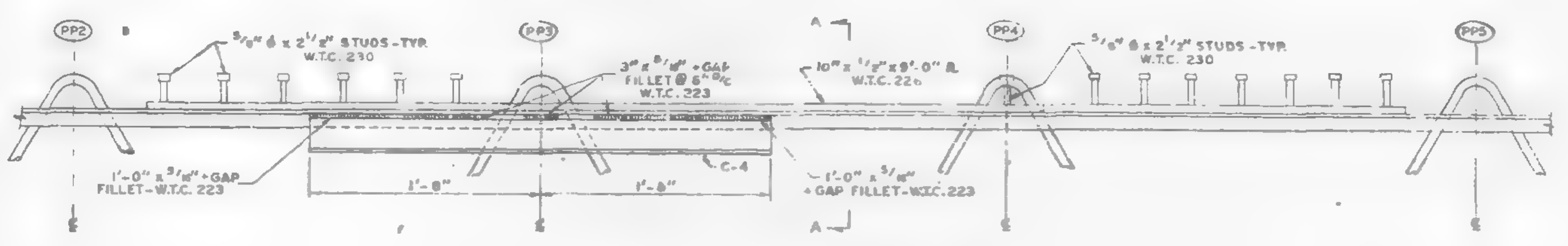
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO.	PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A.	DATE	DRAWN BY: gdc DATE MARCH 20, 1969	
APPROVED FOR FABRICATION BY FOR FABRICATOR	DATE	CHECKED BY: T.M. CHURA DATE MARCH 20, 1969	IN CHARGE OF PROD. DEV.
DETAILED BY		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 229

NO.	DATE	REVISION	BY

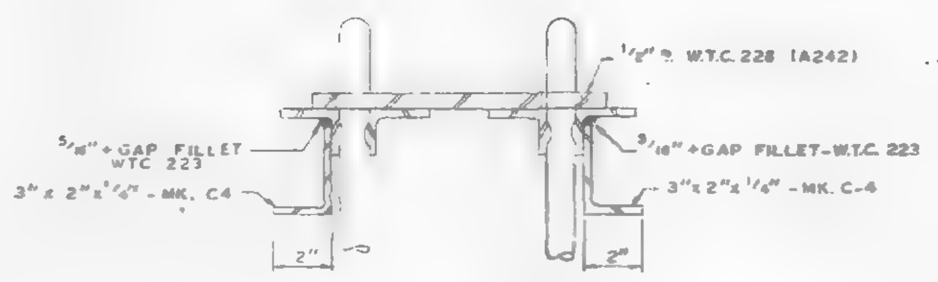
LACLEDE STEEL CO.



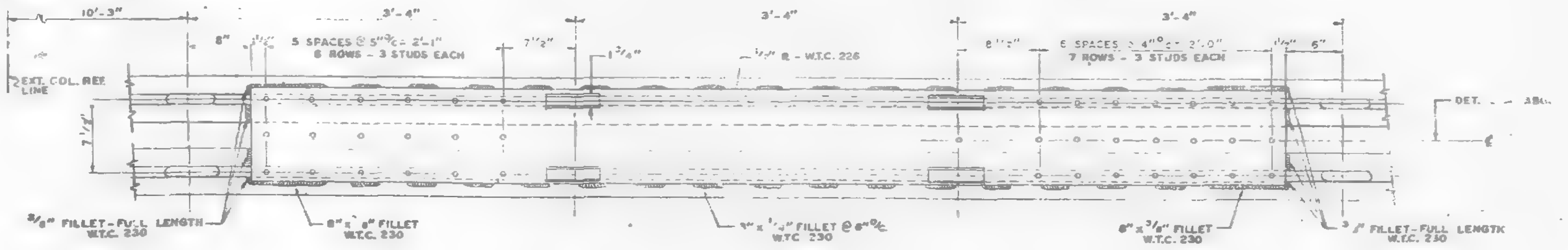
INTERIOR PANEL CONNECTION (3-A)
PANELS: AB



ELEVATION OF CONNECTIONS (3-A) & (4-A)



SECTION A-A



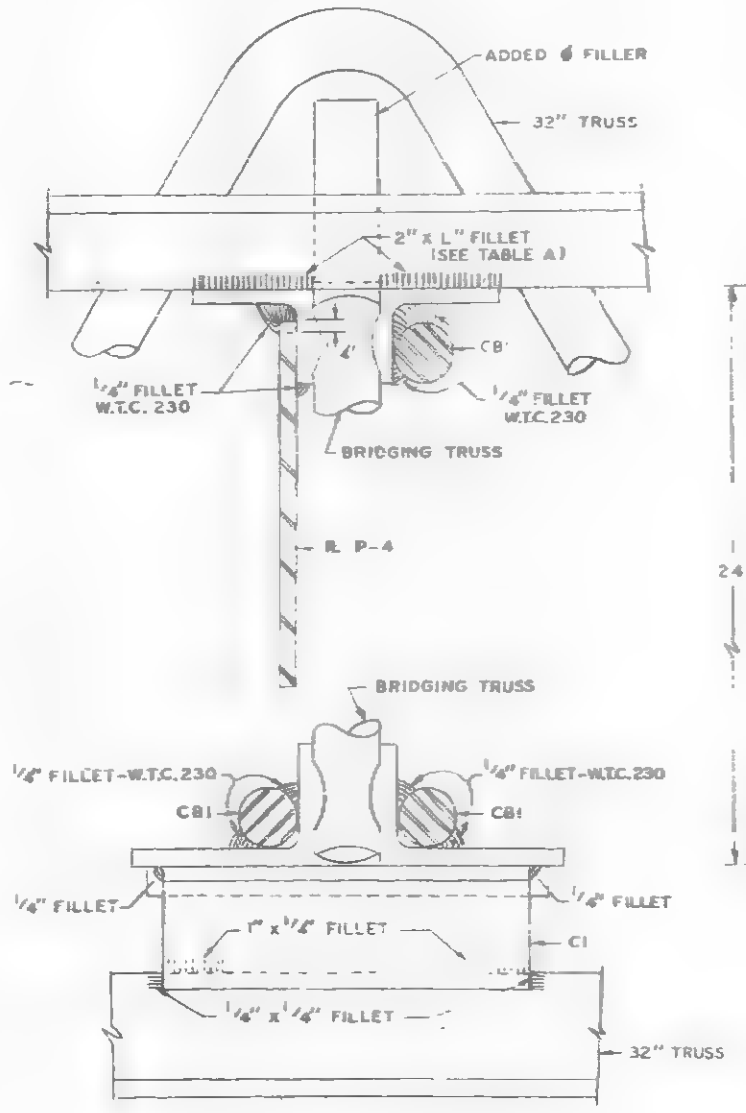
PANEL JOINT CONNECTION (4-A)
PANELS: BB & BBB

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.

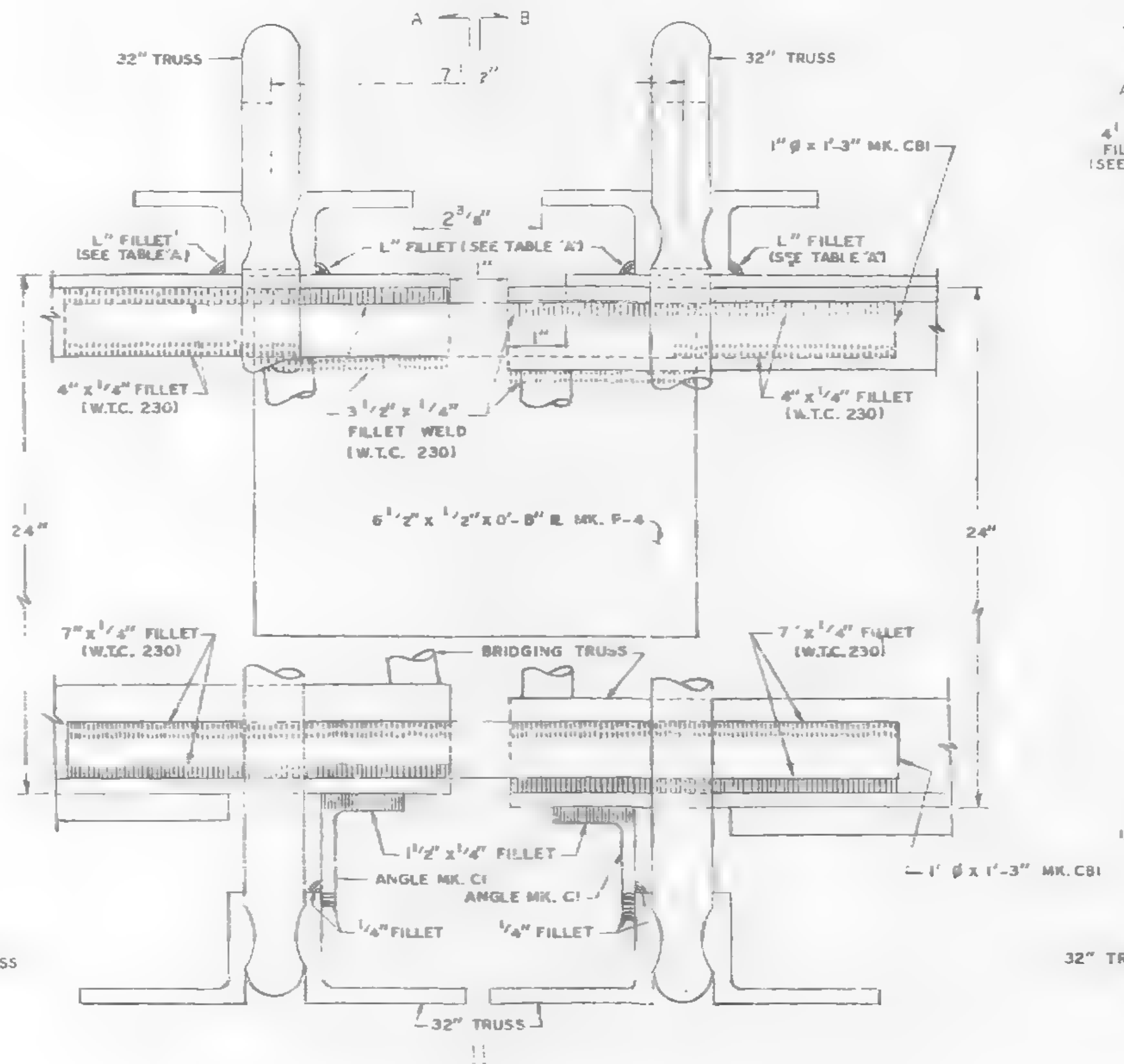
CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAILS 3-A & 4-A

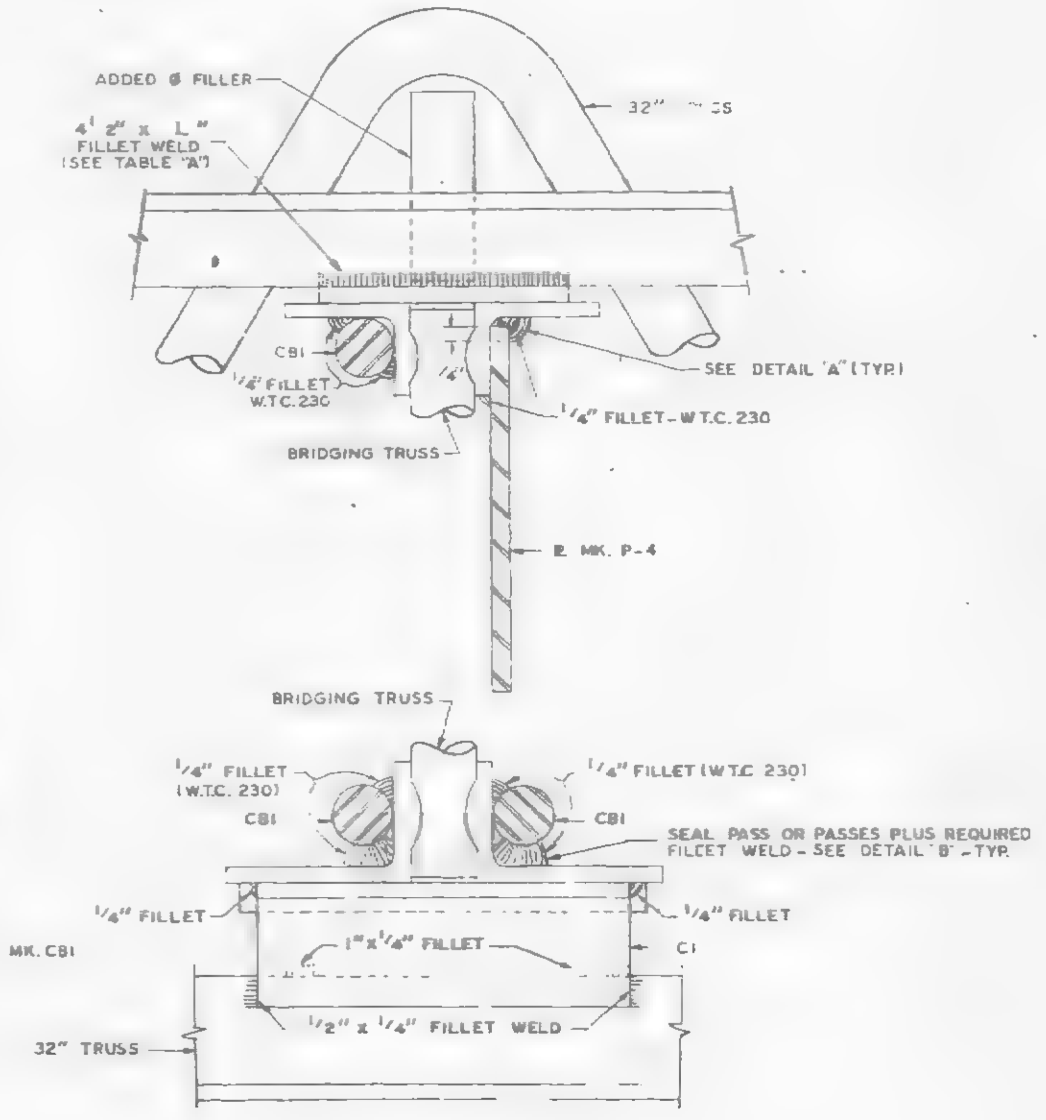
FABRICATION BY: LACLEDE STEEL COMPANY			
FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB4-62	PLATE
APPROVED FOR FABRICATION BY [signature] FOR P.O.N.Y.A.	DATE 4/10/69	DRAWN BY: gdc DATE MARCH 28, 1969	
APPROVED FOR FABRICATION BY: FOR FABRICATOR	DATE	CHECKED BY: T.M.CHURA DATE MARCH 28, 1969	IN CHARGE OF PROD. DEV.
DETAILED BY A. CARL WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 230



SECTION A-A



(8-A) PANEL JOINT CONNECTION DETAIL



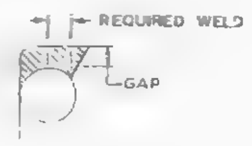
SECTION B-B

ALL ARC WELD TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS OTHERWISE NOTED ALL ARC WELDS BY W.T.C 223.
ALL CONNECTION PLATES AND ø SPLICE BARS TO BE ASTM. A36.

DETAIL A

TABLE "A"

"L"	LOCATION
5/16"	ALL FLOOR 44 & 78 EXCEPT CONDITION BELOW
3/8"	FLR.44, PANELS DR8 TO ER8 - SOUTH, BLDG."A"

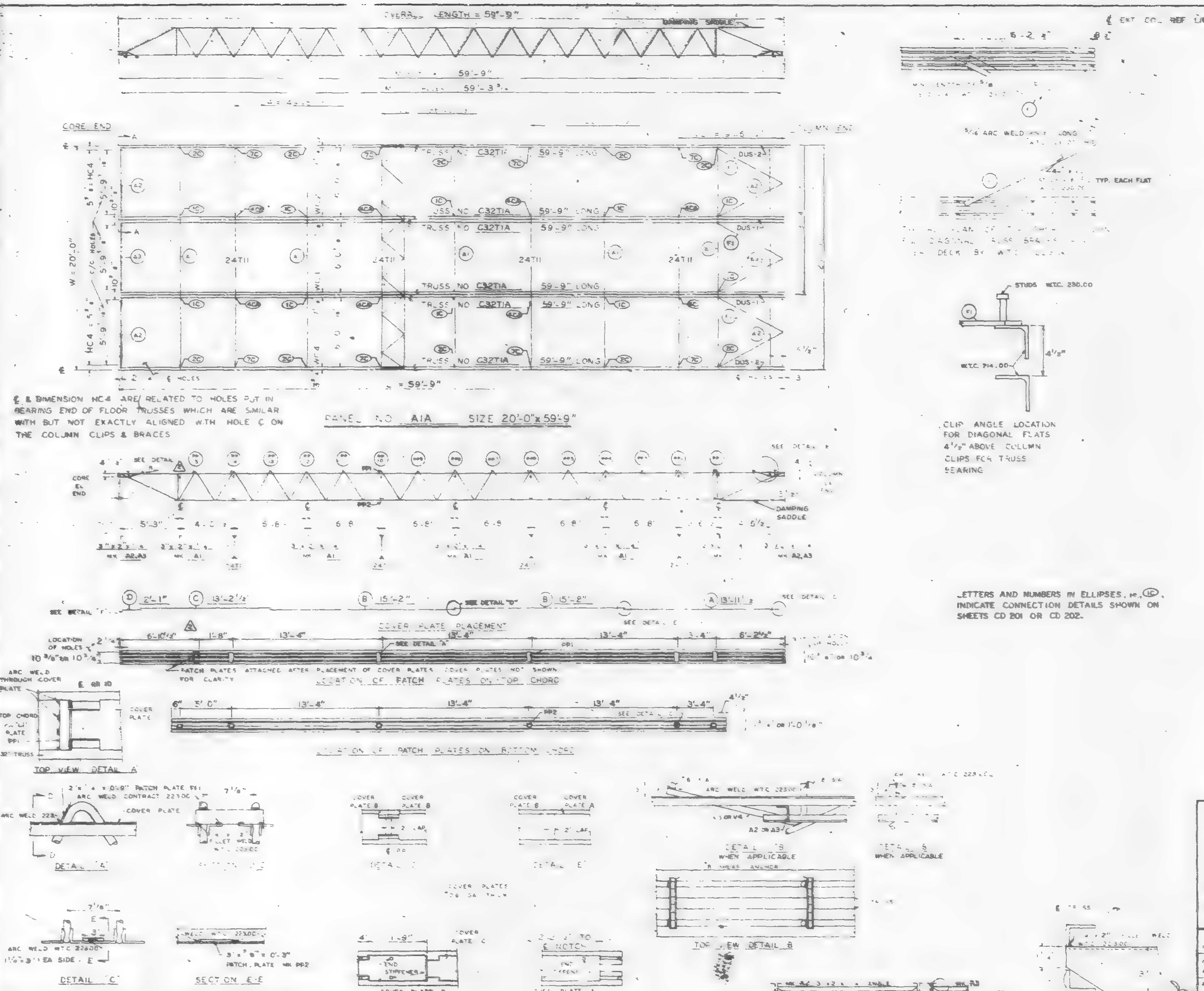


DETAIL "B"

CONNECTION DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

CONNECTION DETAIL 8-A
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY		
FABRICATED AT MADISON, ILLINOIS	DESIGN DRAWING NO. 7-A84-18	PLATE
APPROVED FOR FABRICATION BY: [illegible] FOR P.O.N.Y.A. DATE 6/4/69	DRAWN BY: G.D.C. DATE APRIL 22, 1969	
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE	CHECKED BY: T.M.CHURA DATE APRIL 22, 1969	IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER	FABRICATION CONT. NO. W.T.C. 221	SHEET NO. CD 231



€ & DIMENSION HC4 ARE RELATED TO HOLES PUT IN BEARING END OF FLOOR TRUSSES WHICH ARE SIMILAR WITH BUT NOT EXACTLY ALIGNED WITH HOLE € ON THE COLUMN CLIPS & BRACES

LETTERS AND NUMBERS IN ELLIPSES, ie. (1C), INDICATE CONNECTION DETAILS SHOWN ON SHEETS CD 201 OR CD 202.

NOTE. ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS SHALL BE 1/4" x 1" FULL THROAT FILLET.

REQUIRED MATERIAL PER PANEL				REF. DRWG.
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	T1A	6	C32T1A - 59'-9"	ST201A
BRIDGING TRUSSES	T.	4	24" [illegible]	ST2 [illegible]
[illegible] ANGLE	A1	5	3"x2"x¼"x [illegible]	ST4 [illegible]
	A2	4	3"x2"x¼"x5'-11 [illegible]	ST403
	A3	2	3"x2"x¼"x [illegible]	ST403
DIAGONAL FLATS	F1	6	½"x [illegible]	ST402
PATCH PLATES	PP1	24	[illegible] 4"x 0-9"	ST400
	PP2	24	3"x ⅜"x 0-3"	ST400
COVER PLATES	A	-	9"x 0135"x 13-[illegible]½"	ST303
	B	8	9"x 0135"x 15'-2"	ST303
	C	4	9"x 0135"x 13'-2½"	ST303
	D	4	9"x 0135"x 2'-1"	ST303
ANGLE CLIPS	C1	24	2"x 2"x ¼"x 0'-6"	ST400
#8 SHEAR ANCHOR	SA2	18	#8 REBAR x 0'-9"	ST400
DAMPING SADDLE	DUS-1	2	3½"x3½"x⅜"x3'-6⅞"	ST290
	DUS-2	2	3½"x3½"x⅜"x3'-6⅞"	ST290
CONNECTION BAR	CB1	2	[illegible]" x 1'-3"	ST400
CONNECTION PLATES	P1	10	3½" x ⅜" x 8½"	ST400
	P2	8	4½" x .38" x 0'-9"	ST400
	P3	8	4½" x .38" x 1'-0"	ST400

NO.	DATE	REVISION	BY
2	2-17-[illegible]	AS NOTED	[illegible]
1	7-12-[illegible]	GENERAL	[illegible]

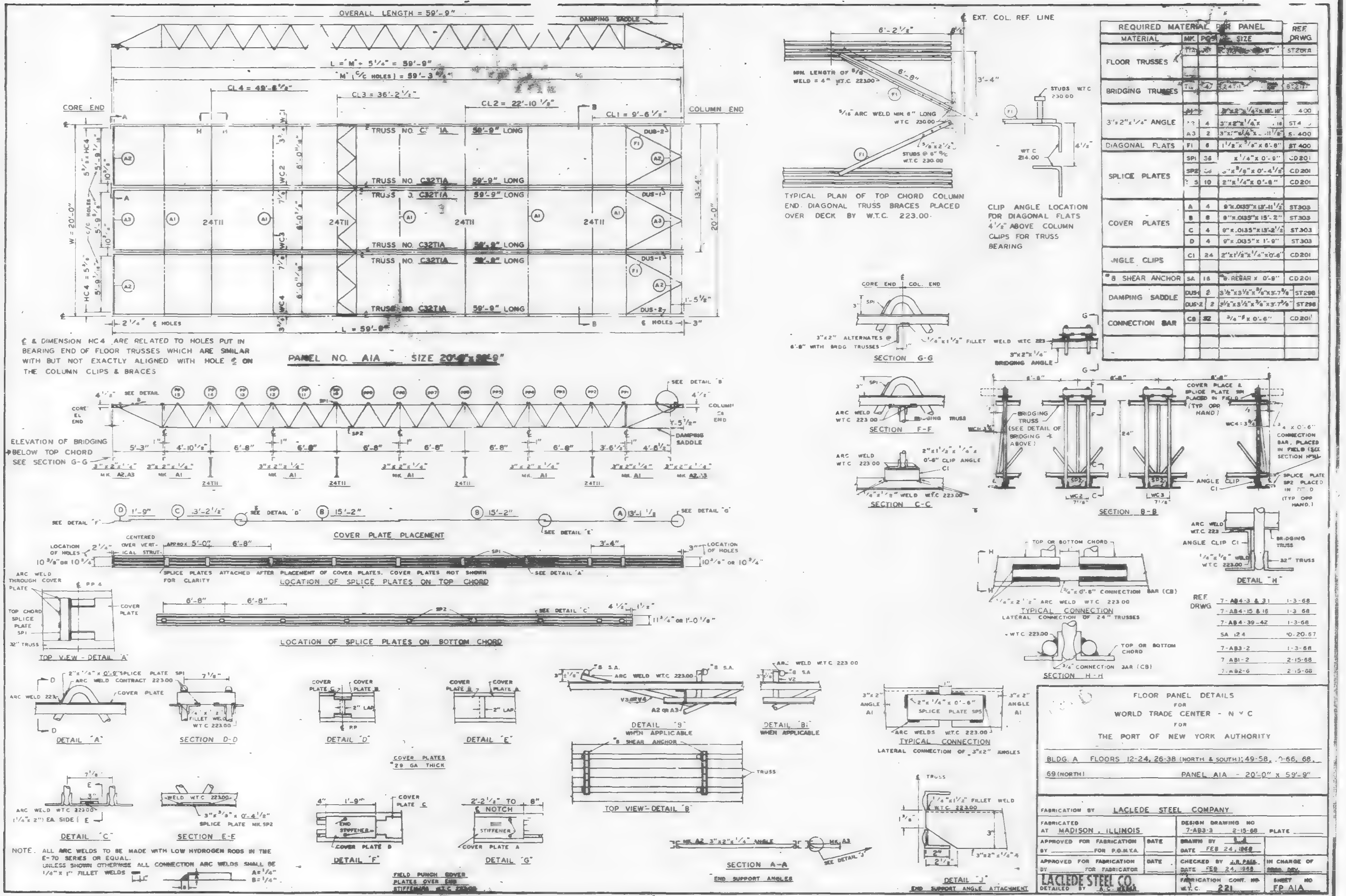
REF DRWG

7-AB4-3, 3, 1 & 39	1-3-[illegible]
7-AB4-15 & 16	3-5-[illegible]
7-AB4-42	1-3-[illegible]
SA-124	10-20-67
7-AB3-2	1-5-[illegible]
7-AB1-2	2-15-[illegible]
7-AB2-6	2-15-[illegible]

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG A FLOORS 12-24, 26-38 (NORTH & SOUTH), 49-58, 60-66, 68, 69 (NORTH)
PANEL A1A - 20'-0" x 59'-9"

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB3-3 4-1-[illegible] PLATE
APPROVED FOR FABRICATION FOR PONYA — DATE [illegible]
DRAWN BY [illegible] DATE FEB 24, [illegible]
APPROVED FOR FABRICATION BY FOR FABRICATOR — DATE
CHECKED BY [illegible] DATE FEB 24, [illegible]
DETAILED BY A.T. WEBER
FABRICATION CONT. NO. W T C 221
SHEET NO FP A1A



REQUIRED MATERIAL PER PANEL				REF. DRWG.
MATERIAL	MK.	PCS.	SIZE	
FLOOR TRUSSES	T1A	[illegible]	C32T1A [illegible]	ST201A
BRIDGING TRUSSES	T4	4	24T11 [illegible]	ST211
3"x2"x1/4" ANGLE	A1		3"x2"x1/4"x 10'-10"	400
	A2	4	3"x2"x1/4"x [illegible]	ST4[illegible]
	A3	2	3"x2"x1/4"x [illegible]-11 1/2"	S.400
DIAGONAL FLATS	F1	6	1 1/2"x 3/8"x 6'-6"	ST 400
SPLICE PLATES	SP1	36	x 1/4"x 0'-9"	CD201
	SP2	[illegible]	[illegible]"x 3/8"x 0'-4 1/2"	CD201
	SP5	10	2"x 1/4"x 0'-6"	CD201
COVER PLATES	A	4	9"x.0135"x 13'-11 1/2"	ST303
	B	8	9"x.0135"x 15'-2"	ST303
	C	4	9"x.0135"x 13'-2 1/2"	ST303
	D	4	9"x.0135"x 1'-9"	ST303
ANGLE CLIPS	C1	24	2"x1 1/2"x 1/4"x 0'-6"	CD201
#8 SHEAR ANCHOR	SA	16	#8 REBAR x 0'-9"	CD201
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
CONNECTION BAR	CB	32	3/4"ø x 0'-6"	CD201

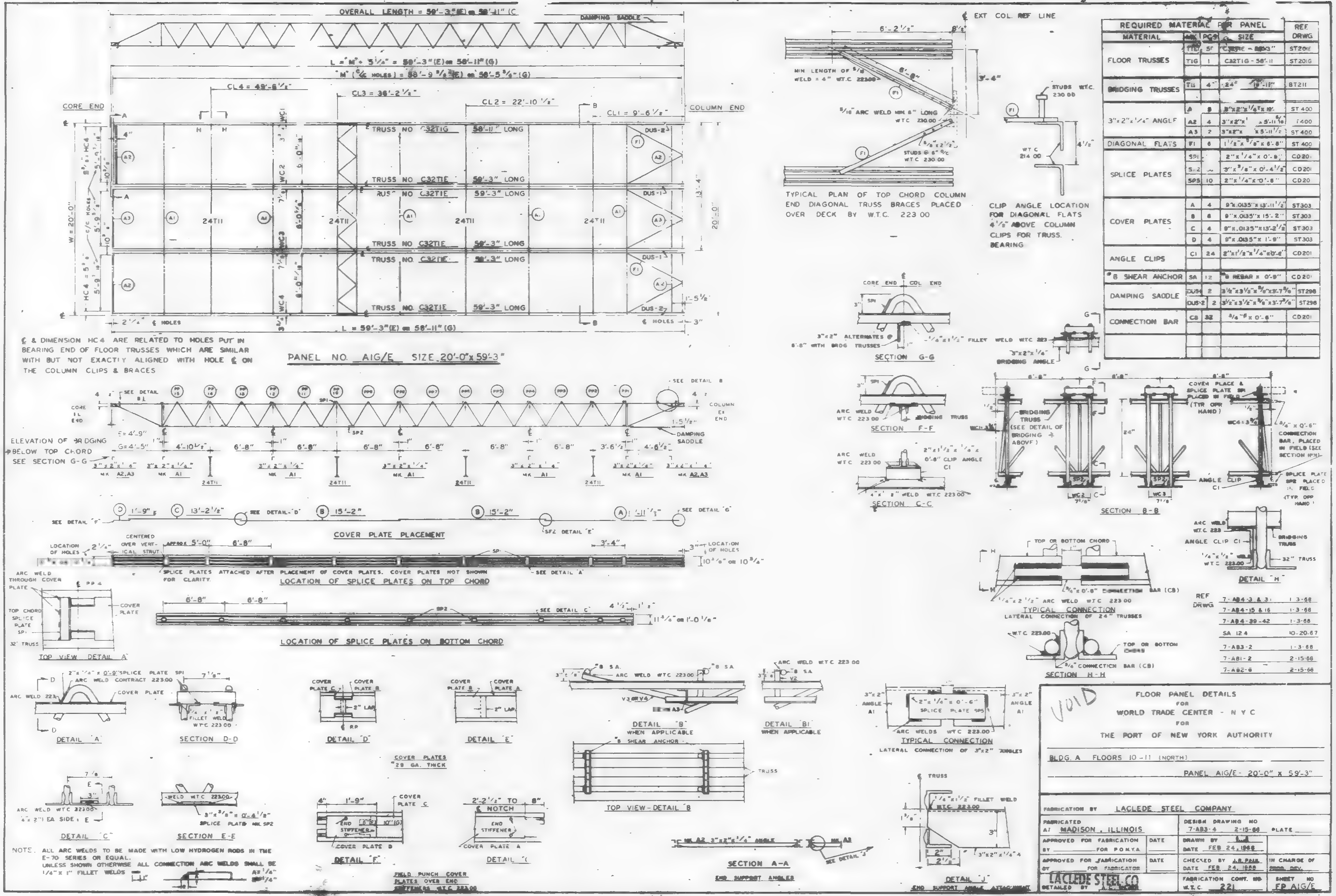
REF. DRWG

7-AB4-3 & 31	1-3-68
7-AB4-15 & 16	1-3-68
7-AB4-39-42	1-3-68
SA 124	10-20-67
7-AB3-2	1-3-68
7-AB1-2	2-15-68
7-AB2-6	2-15-68

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 12-24, 26-38 (NORTH & SOUTH); 49-58, [illegible]0-66, 68, 69 (NORTH)
PANEL A1A - 20'-0" x 59'-9"

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB3-3 2-15-68 PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
DRAWN BY [illegible] DATE FEB 24, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB 24, 1968
IN CHARGE OF [illegible]
LACLEDE STEEL CO.
DETAILED BY A.C. [illegible]
FABRICATION CONT. NO. W.T.C. 221
SHEET NO FP A1A



REQUIRED MATERIAL PER PANEL				REF. DRWG
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	TIE	5	C32TIE - 59'-3"	ST201E
	TIG	1	C32TIG - 58'-11	ST201G
BRIDGING TRUSSES	T11	4	24 - 19'-11"	BT211
3"x2"x1/4" ANGLE	A	8	3"x2"x1/4"x 19'-	ST 400
	A2	4	3"x2"x1 x 5'-11 6/16	ST400
	A3	2	3"x2"x x 5'-11 1/2	ST 400
DIAGONAL FLATS	F1	6	1 1/2"x 5/8" x 6'-8"	ST 400
SPLICE PLATES	SP1		2"x 1/4" x 0'-8"	CD201
	SP2		3"x 3/8" x 0'-4 1/2"	CD201
	SP5	10	2"x 1/4" x 0'-8"	CD20
COVER PLATES	A	4	9"x.0135"x 13'-11 1/2"	ST303
	B	8	9"x.0135"x 15'-2"	ST303
	C	4	9"x.0135"x 13'-2 1/2"	ST303
	D	4	9"x.0135"x 1'-9"	ST303
ANGLE CLIPS	C1	24	2"x1 1/2"x 1/4" x 0'-6"	CD201
#6 SHEAR ANCHOR	SA	12	#6 REBAR x 0'-9"	CD201
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
CONNECTION BAR	CB	32	3/4"φ x 0'-6"	CD201

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 10-11 (NORTH)

PANEL AIG/E - 20'-0" x 59'-3"

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB3-4 2-15-68 PLATE

APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE

DRAWN BY ______ DATE FEB 24, 1968

APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE

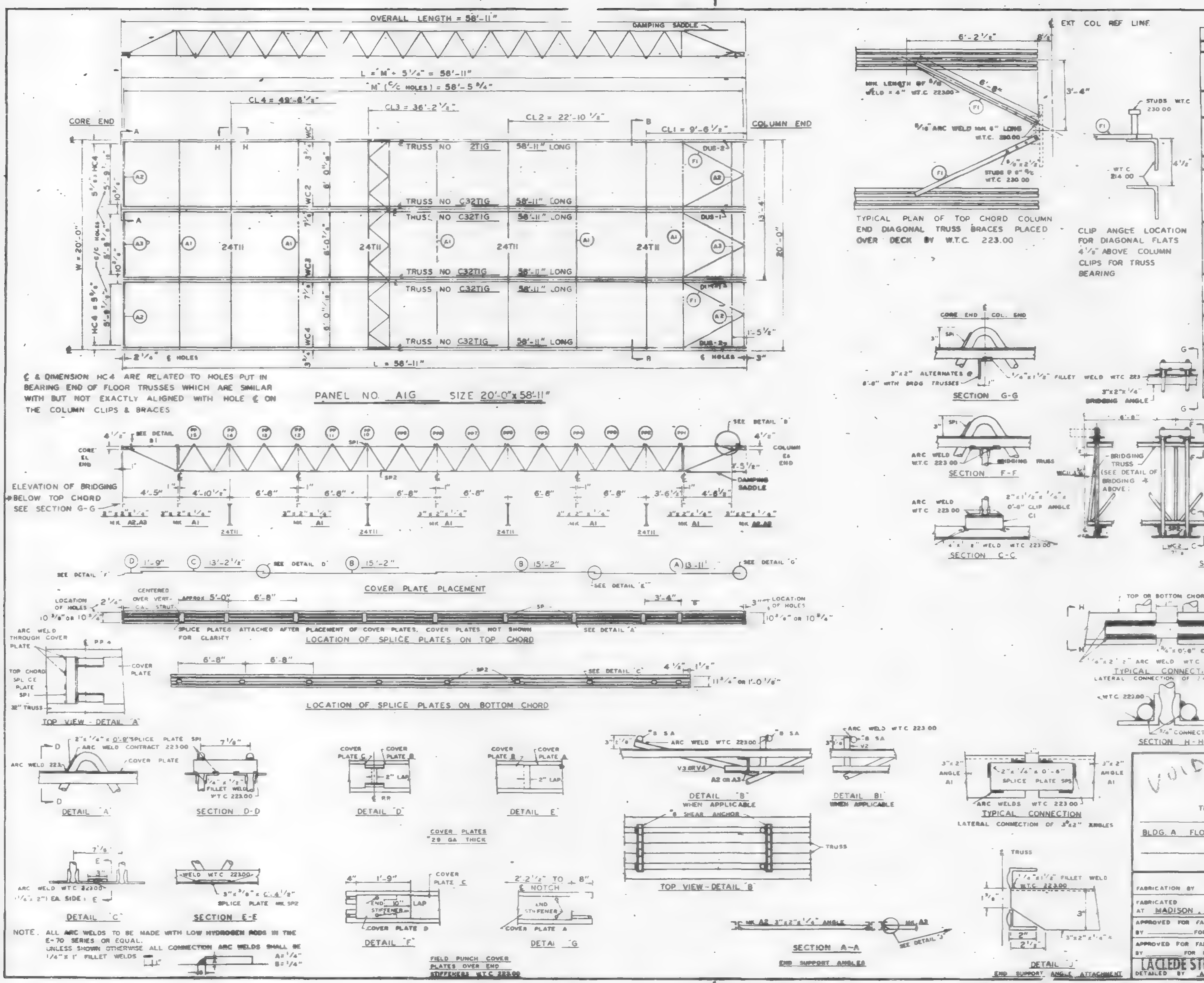
CHECKED BY J.R. PAUL DATE FEB 24, 1968

IN CHARGE OF

LACLEDE STEEL CO DETAILED BY

FABRICATION CONT. NO W.T.C. 221

SHEET NO FP AIG/E



REQUIRED MATERIAL PER PANEL				REF. DRWG
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	T1G	6	C32T1G - 58'-11"	ST201G
BRIDGING TRUSSES	T11	4	24" 19'-11"	BT2.1
3"x2"x1/4" ANGLE	A1	8	3"x2"x1/4"x 19'-1	ST 400
	A2	4	3"x2"x1/4" x 5'-11 5/16"	ST 400
	A3	2	3"x2"x1/4" x 5'-11 1/2"	ST 400
DIAGONAL FLATS	F1	8	1 1/2" x 5/8" x 6'-8"	ST 400
SPLICE PLATES	SP1	2	2"x1/4"x 0'-9"	CD201
	SP2	36	3"x3/8"x 0'-4 1/2"	CD201
	SP3	10	2"x1/4"x 0'-6"	CD201
COVER PLATES	A	4	9"x.0135"x 13'-11 1/2"	ST303
	B	8	9"x.0135"x 15'-2"	ST303
	C	4	9"x.0135"x 13'-2 1/2"	ST303
	D	4	9"x.0135"x 1'-9"	ST303
ANGLE CLIPS	C1	24	2"x1 1/2"x1/4"x 0'-6"	CD201
#8 SHEAR ANCHOR	SA	12	#8 REBAR x 0'-9"	CD201
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x 3'-7 3/8"	ST298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x 3'-7 3/8"	ST298
CONNECTION BAR	CB	32	3/4" ⌀ x 0'-6"	CD201

REF DRWG

7-AB4-3 & 31	3-68
7-AB4-15 & 16	3-68
7-AB4-39, 42	3-68
SA 124	10-20-67
7-AB3-2	3-68
7-AB1-2	2-15-68
7-AB2-6	2-15-68

VOID

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 39 (NORTH & SOUTH) 40 (SOUTH)

PANEL A1G - 20'-0" x 58'-11"

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB3-3 2-15-68 PLATE

APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE

DRAWN BY [illegible] DATE FEB 24, 1968

APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE

CHECKED BY J.R. PAUL DATE FEB 24, 1968

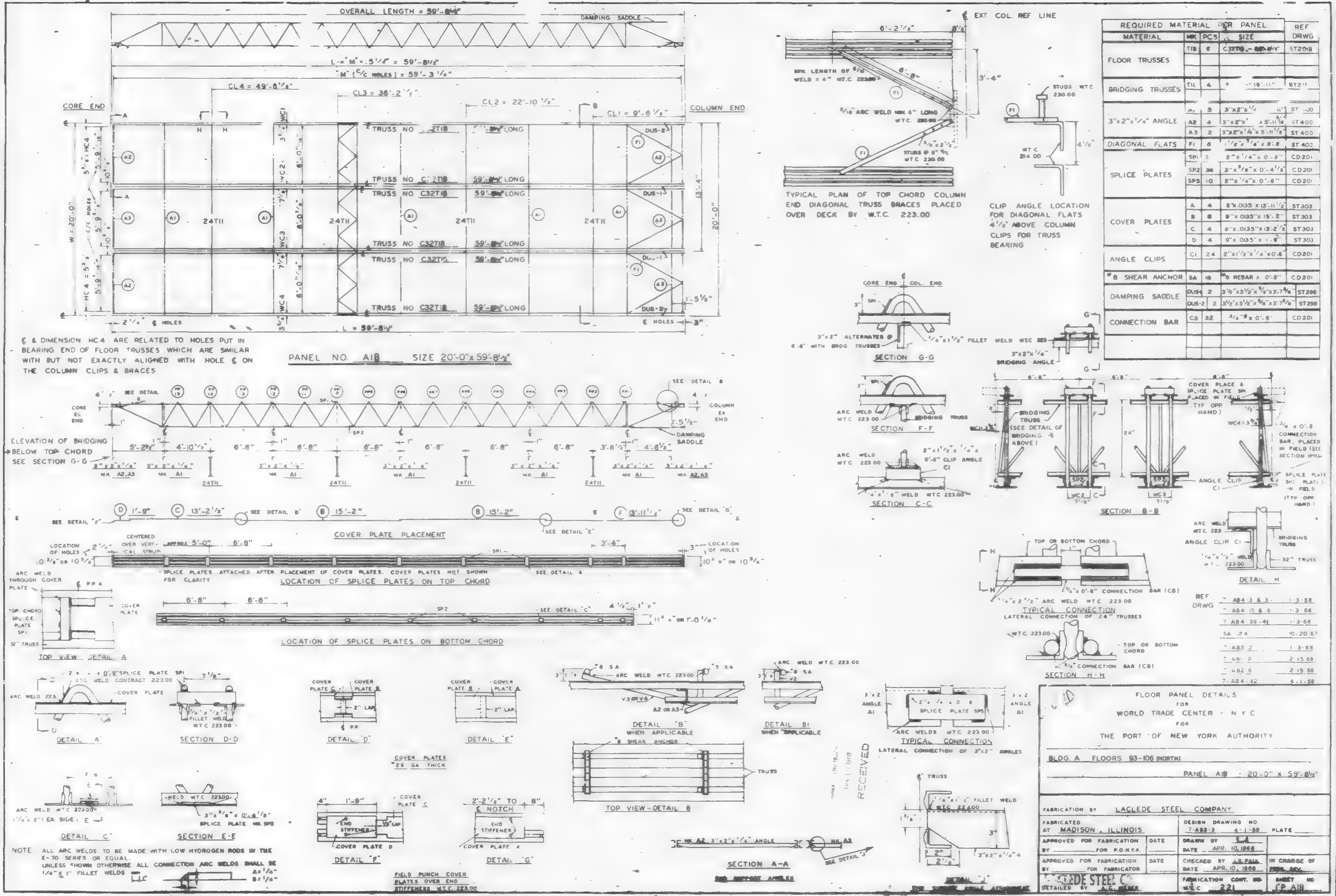
IN CHARGE OF [illegible]

LACLEDE STEEL CO.

DETAILED BY A.C. WEBER

FABRICATION CONT. NO. W.T.C. 221

SHEET NO FP A1G



NOTE ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL. UNLESS SHOWN OTHERWISE ALL CONNECTION ARC WELDS SHALL BE 1/4" x 1" FILLET WELDS

REQUIRED MATERIAL PER PANEL				REF DRWG
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	T1B	6	C32T[illegible] - [illegible]	ST2018
BRIDGING TRUSSES	T11	4	[illegible] 19'-11"	ST2[illegible]
3"x2"x1/4" ANGLE	A1	8	3"x2"x1/4" [illegible]	ST 400
	A2	4	3"x2"x [illegible] x 5'-11 5/16"	ST 400
	A3	2	3"x2"x1/4"x 5'-11 1/2"	ST 400
DIAGONAL FLATS	F1	6	1 1/2"x 5/8" x 6'-8	ST 400
SPLICE PLATES	SP1	5	2"x 1/4"x 0-9"	CD 201
	SP2	36	3"x 3/8"x 0'-4 1/2"	CD 201
	SP5	10	2"x 1/4"x 0'-6"	CD 201
COVER PLATES	A	4	9"x.0135" x 13'-11 1/2"	ST 303
	B	8	9"x 0135"x 15'-2"	ST 303
	C	4	9"x.0135"x 13'-2 1/2"	ST 303
	D	4	9"x 0135" x 1-9"	ST 303
ANGLE CLIPS	C1	24	2"x1 1/2"x 1/4"x0'-6"	CD 201
#8 SHEAR ANCHOR	SA	16	#8 REBAR x 0'-8"	CD 201
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST 298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST 298
CONNECTION BAR	CB	32	3/4"Ø x 0'-6"	CD 201

REF DRWG

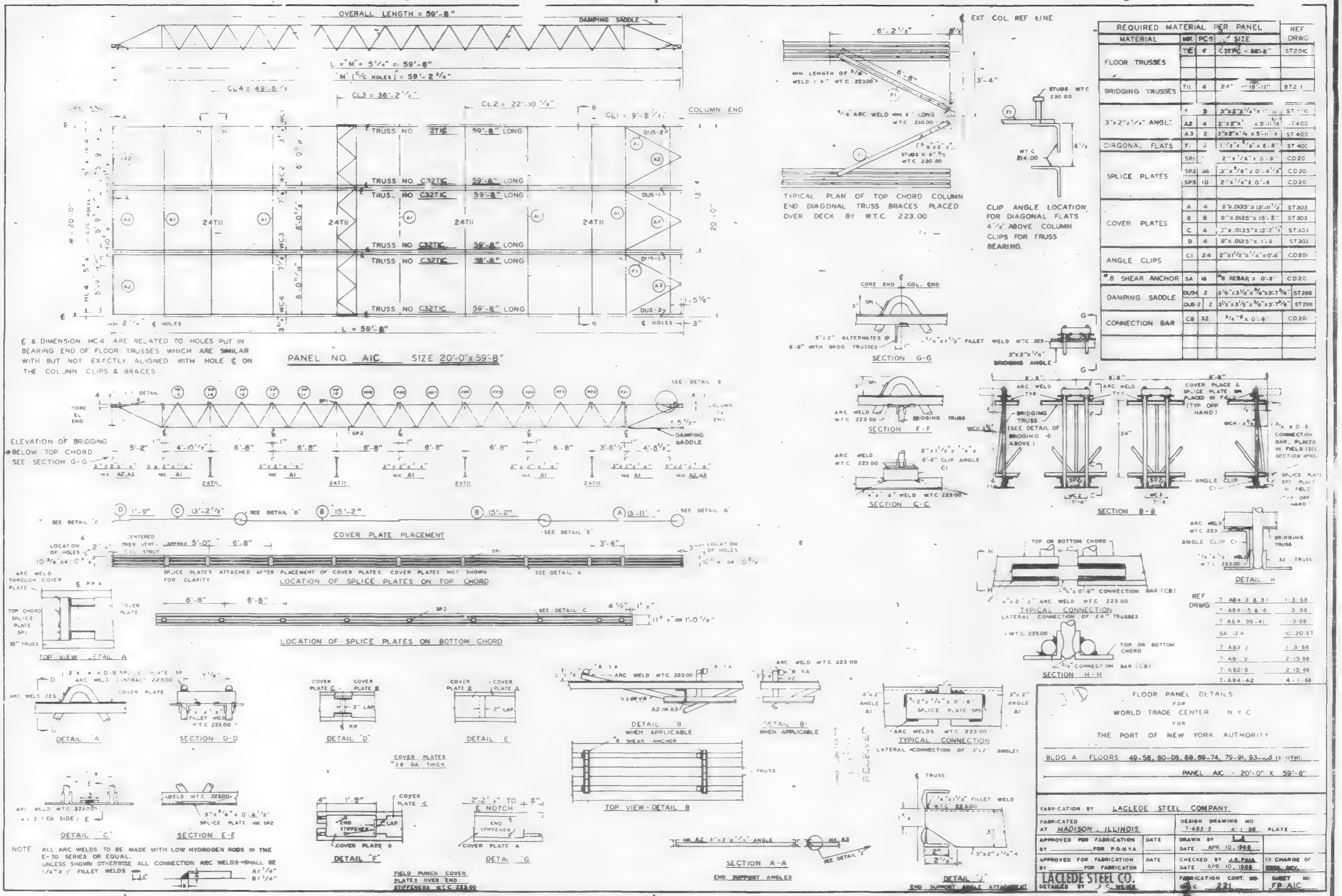
7-AB4-3 & 3	1-3-68
7-AB4-15 & 6	1-3-68
7-AB4-39-41	1-3-68
SA 124	10-20-67
7-AB3-2	1-3-68
7-AB1-2	2-15-68
7-AB2-6	2-15-68
7-AB4-42	4-1-68

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 93-106 (NORTH)

PANEL A1B - 20-0" x 59'-8½"

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB3-3 4-1-68 PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
DRAWN BY [illegible] DATE APR. 10, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY A.B. PAIL DATE APR. 10, 1968
IN CHARGE OF [illegible]
LACLEDE STEEL C°
DETAILED BY A.C. [illegible]
FABRICATION CONT. NO. W.T.C 221
SHEET NO CP A1B



REQUIRED MATERIAL PER PANEL				REF DRWG
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	TE	6	C32TIC - 59'-8"	ST201C
BRIDGING TRUSSES	TII	4	24" - 19'-11"	BT2 1
3"x2"x1/4" ANGLE	A	9	3"x2"x1/4"x [illegible]	ST 400
	A2	4	3"x2"x1/4" x 5'-11 5/16	ST 400
	A3	2	3"x2"x1/4 x 5'-11 1/2	ST 400
DIAGONAL FLATS	F1	3	1 1/2"x 5/8" x 6-8"	ST 400
SPLICE PLATES	SP1	[illegible]	2"x 1/8" x 0'-9"	CD20
	SP2	36	3"x 3/8" x 0'-4 1/2"	CD20
	SP5	10	2"x 1/4" x 0'-8	CD20
COVER PLATES	A	4	9"x.0135"x 13'-11 1/2"	ST303
	B	8	9"x.0135"x 15'-2"	ST303
	C	4	9"x.0135"x 13'-2 1/2"	ST303
	D	4	9"x.0135"x 1'-9	ST303
ANGLE CLIPS	C1	24	2"x1 1/2"x 1/4"x0'-6"	CD201
#8 SHEAR ANCHOR	SA	16	#8 REBAR x 0'-8"	CD20
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
CONNECTION BAR	CB	32	3/4"# x 0'-6"	CD201

REF DRWG	
7 AB4-3 & 31	1-3-68
7 AB4-5 & 6	3 68
7 AB4-39-41	1-3-68
SA 124	10-20-67
7 AB3 2	1 3-68
7 AB1 2	2-15-68
7-AB2-6	2 15 68
7-AB4-42	4-1-68

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG A FLOORS 49-58, 60-66, 68, 69-74, 79-91, 93-106 (SOUTH).

PANEL AIC - 20'-0" X 59'-8"

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB3-3 4-1-68 PLATE

APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A DATE

DRAWN BY [illegible] DATE APR 10, 1968

APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE

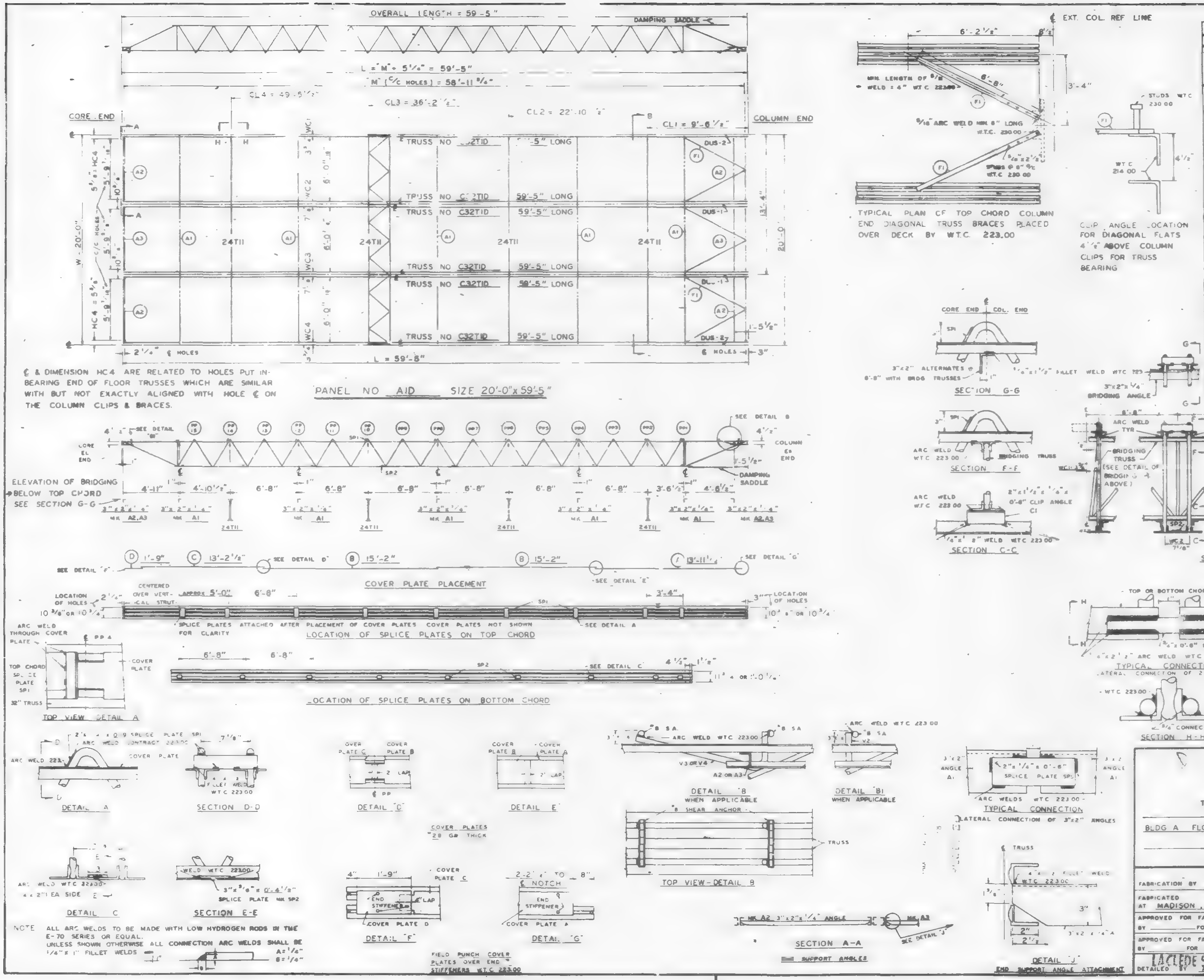
CHECKED BY J.B. PAIS DATE APR. 10, 1968

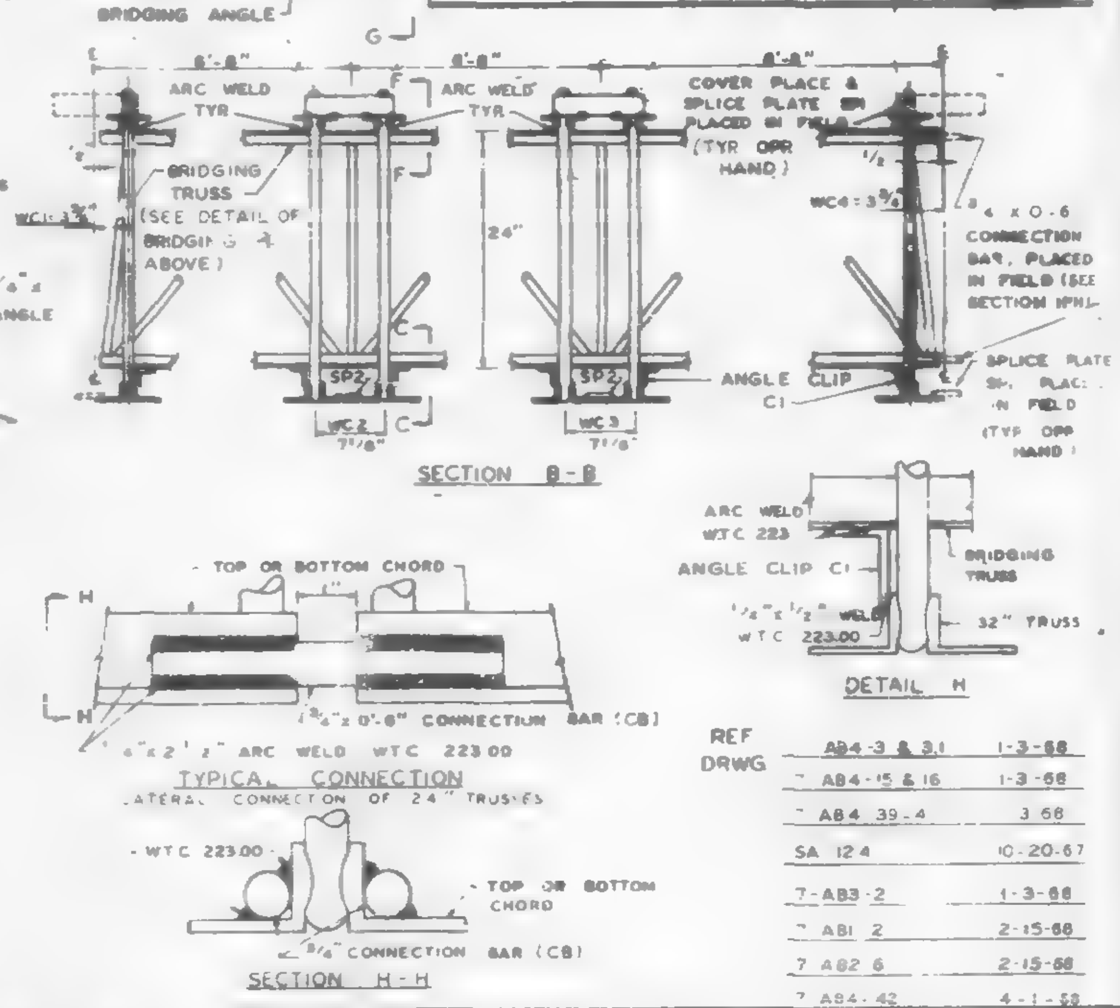
IN CHARGE OF [illegible]

LACLEDE STEEL CO. DETAILED BY J.C. WEINA

FABRICATION CONT. NO. WTC 221

SHEET NO FP AIC





REQUIRED MATERIAL PER PANEL				REF DRWG
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	TID	6	C32TID - 59'-5"	ST2010
BRIDGING TRUSSES	T11	4	[illegible]	ST2[illegible]
3"x2"x1/4" ANGLE	[illegible]	5	3"x2"x1/4" [illegible]	ST [illegible]
	A2	4	3"x2"x[illegible] x 5'-11 [illegible]	ST400
	A3	2	3"x2"x1/4"x5'-11 1/2"	ST400
DIAGONAL FLATS	F1	6	1 1/2"x 3/8" x 6'-8"	ST400
SPLICE PLATES	SP1	3	2"x1/4"x 0'-8"	CD201
	SP2	36	3"x 3/8"x 0'-4 1/2"	CD201
	SP5	10	2"x 1/4"x 0'-8"	CD20
COVER PLATES	A	4	9"x.0185"x 13'-11 1/2"	ST303
	B	8	9"x.0185"x 15'-2"	ST303
	C	4	9"x.0185"x 13'-2 1/2"	ST303
	D	4	9"x.0185"x 1'-9"	ST303
ANGLE CLIPS	C1	24	2"x1 1/2"x1/4"x0'-6"	CD201
#8 SHEAR ANCHOR	SA	18	#8 REBAR x 0'-9"	CD201
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x3'-7 3/8"	ST298
CONNECTION BAR	CB	32	3/4"Ø x 0'-6"	CD201

REF DRWG

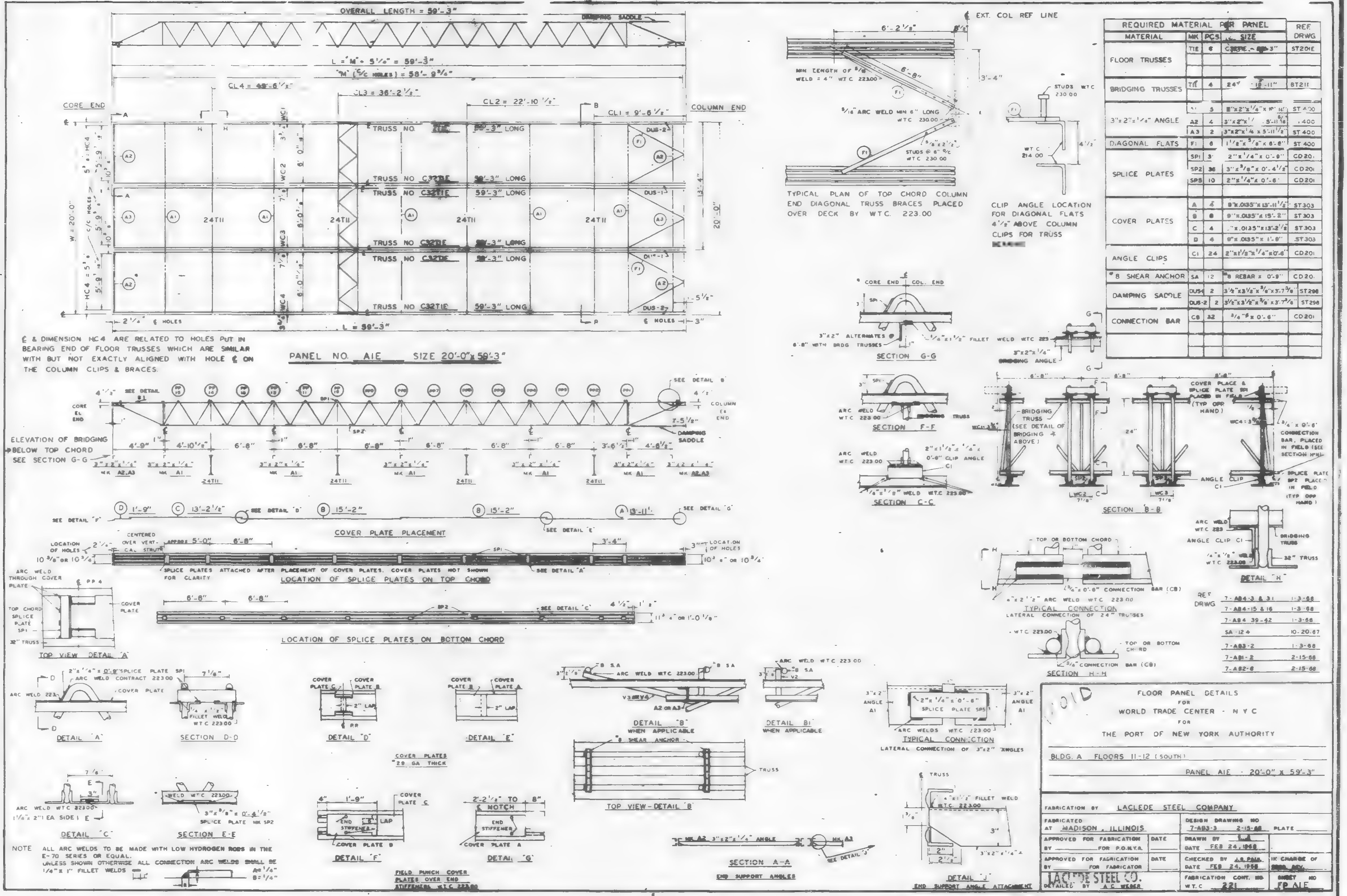
AB4-3 & 3.1	1-3-68
AB4-15 & 16	1-3-68
AB4 39-4	3 68
SA 124	10-20-67
7-AB3-2	1-3-68
7 AB1 2	2-15-68
7 AB2 6	2-15-68
7 AB4-42	4-1-68

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG A FLOORS 81-82 (NORTH)

PANEL A1D - 20'-0" x 59'-5"

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB3-3 4-1-68 PLATE
APPROVED FOR FABRICATION BY FOR P O N Y A DATE
DRAWN BY DATE APR. 10, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY DATE APR. 10, 1968
LACLEDE STEEL CO. DETAILED BY A. C. BEACH
FABRICATION CONT. NO W.T.C 221
SHEET NO CP A1D



REQUIRED MATERIAL PER PANEL				REF. DRWG
MATERIAL	MK	PCS	SIZE	
FLOOR TRUSSES	T1E	6	C32... – 59'-3"	ST201E
BRIDGING TRUSSES	T11	4	24" ... 19'-11"	ST211
3"x2"x1/4" ANGLE	A1	5	3"x2"x1/4"x 19'-11"	ST 400
	A2	4	3"x2"x1/4" ... 5'-11 5/16"	ST 400
	A3	2	3"x2"x1/4 x 5'-11 1/2"	ST 400
DIAGONAL FLATS	F1	6	1 1/2"x 3/8"x 6'-8"	ST 400
SPLICE PLATES	SP1	3[illegible]	2"x 1/4"x 0'-9"	CD201
	SP2	36	3"x 3/8"x 0'-4 1/2"	CD201
	SP5	10	2"x 1/4"x 0'-6"	CD201
COVER PLATES	A	4	9"x.0135"x 13'-11 1/2"	ST303
	B	8	9"x.0135"x 15'-2"	ST303
	C	4	[illegible]"x.0135"x 13'-2 1/2"	ST303
	D	4	9"x.0135"x 1'-9"	ST303
ANGLE CLIPS	C1	24	2"x1 1/2"x 1/4"x 0'-6"	CD201
#8 SHEAR ANCHOR	SA	12	#8 REBAR x 0'-9"	CD201
DAMPING SADDLE	DUS-1	2	3 1/2"x3 1/2"x 3/8"x 3'-7 3/8"	ST298
	DUS-2	2	3 1/2"x3 1/2"x 3/8"x 3'-7 3/8"	ST298
CONNECTION BAR	CB	32	3/4"φ x 0'-6"	CD201

REF. DRWG	
7-AB4-3 & 31	1-3-68
7-AB4-15 & 16	1-3-68
7-AB4 39-42	1-3-68
SA-124	10-20-67
7-AB3-2	1-3-68
7-AB1-2	2-15-68
7-AB2-8	2-15-68

VOID

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 11-12 (SOUTH)

PANEL A1E - 20'-0" x 59'-3"

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS

DESIGN DRAWING NO 7-AB3-3 2-15-68 PLATE

APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE

DRAWN BY [illegible] DATE FEB 24, 1968

APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE

CHECKED BY J.B. PAUL DATE FEB 24, 1968

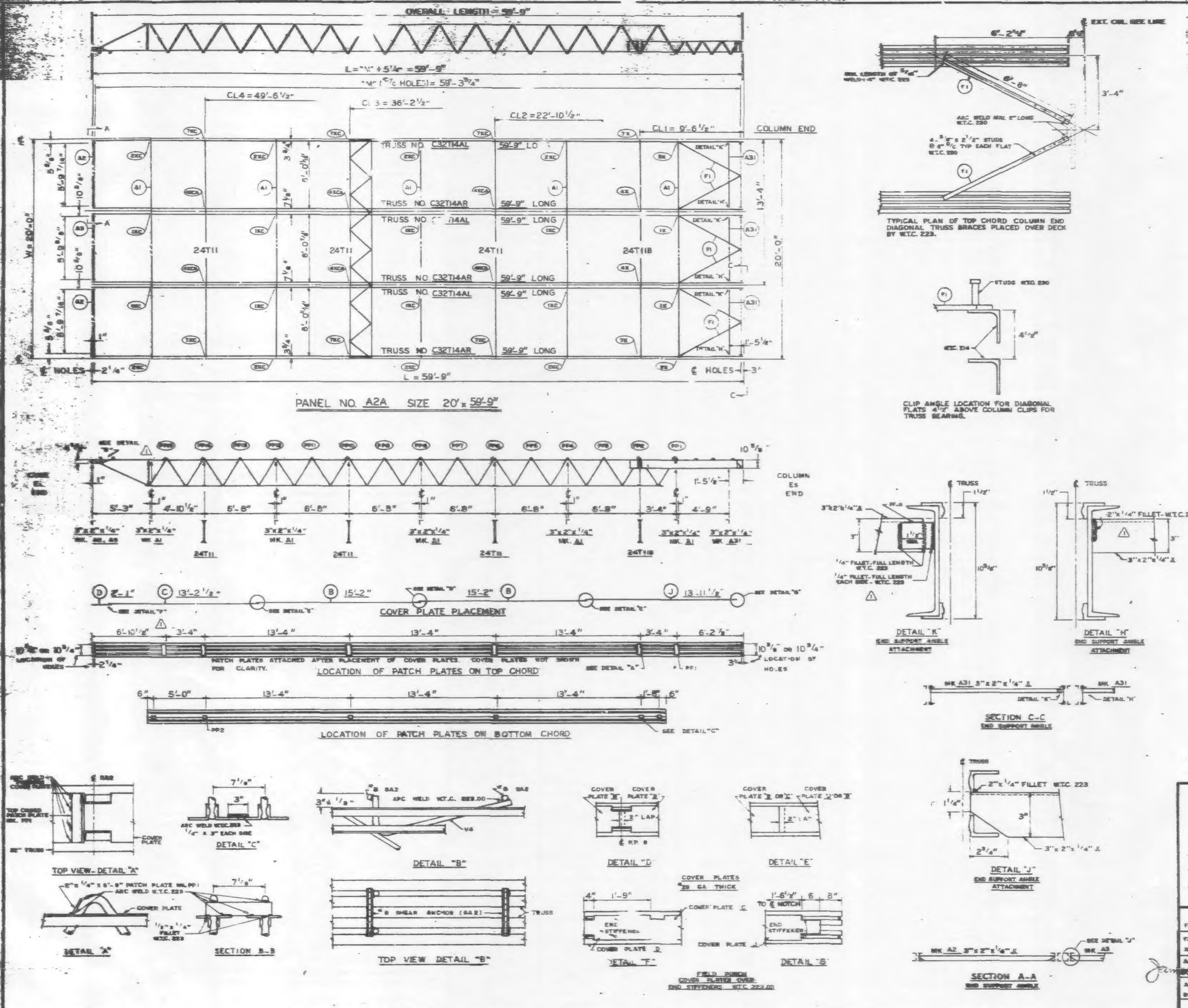
IN CHARGE OF [illegible]

LACLEDE STEEL CO.

DETAILED BY A.C. WEBER

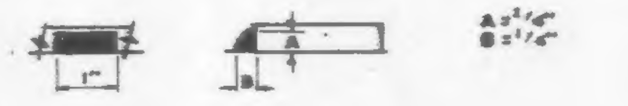
FABRICATION CONT. NO. W.T.C. 221

SHEET NO FP A1E



REQUIRED MATERIAL PER PANEL				REF. DWG.
MATERIAL	MK.	PCS.	SIZE	
FLOOR TRUSSES	[illegible]	3	C32T14AL x 59'-9"	[illegible]
	[illegible]	3	C32T14AR x 59'-9"	[illegible]
BRIDGING TRUSSES	T11	3	24T11 x 19'-11"	ST 211
	T11B	1	24T11B x 9'-11"	ST 211B
3" x 2" x 1/4" ANGLE	A1	5	3" x 2" x 1/4" x 19'-11"	ST 403
	A2	2	3" x 2" x 1/4" x 5'-11"	ST 403
	A3	1	3" x 2" x 1/4" x 5'-11"	ST 403
	A31	3	3" x 2" x 1/4" x 5'-8 1/8"	ST 410
CLOSURE PLATES	PF-11	3	3" x 1/4" x 0'-2 3/8"	ST 412
DIAGONAL FLATS	F1	6	1 1/2" x 3/8" x 6'-8"	ST 402
PATCH PLATES	PP1	24	2" x 1/4" x 0'-9"	ST 400
	PP2	24	3" x 3/8" x 0'-3"	ST 400
COVER PLATES	B	8	9" x .0135" x 15'-2"	ST 303
	C	4	9" x .0135" x 13'-2 1/2"	ST 303
	D	4	9" x .0135" x 2'-1"	ST 303
	J	4	9" x .0135" x 13'-11 1/2"	ST 304
ANGLE CLIPS	C1	24	2" x 1 1/2" x .25" x 0'-6"	ST 400
#8 SHEAR ANCHOR	SA2	8	#8 REBAR x 0'-9"	ST 400
CONNECTION BAR	CB1	10	1" ⌀ x 1'-3"	ST 400
CONNECTION PLATES	P1	8	3 1/2" x 3/8" x 0'-6 1/2"	ST 400
	P2	8	4 1/2" x .38" x 0'-9"	ST 400
	P3	8	4 1/2" x .38" x 1'-0"	ST 400
	P9	8	3" x 1/2" x 1'-2"	ST 409

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
LETTERS AND NUMBERS IN ELLIPSES INDICATE CONNECTION DETAILS, i.e., (1K).
ALL CONNECTION DETAILS FOR FLOORS 25, 50 & 82 ARE SHOWN ON SHEETS CD 210 THRU CD 228.
UNLESS OTHERWISE SHOWN ALL CONNECTION ARC WELDS SHALL BE 1" x 1/4" FULL THROAT FILLET.



NO.	DATE	REVISION	BY
1	2-4-69	AS NOTED	G.D.C.

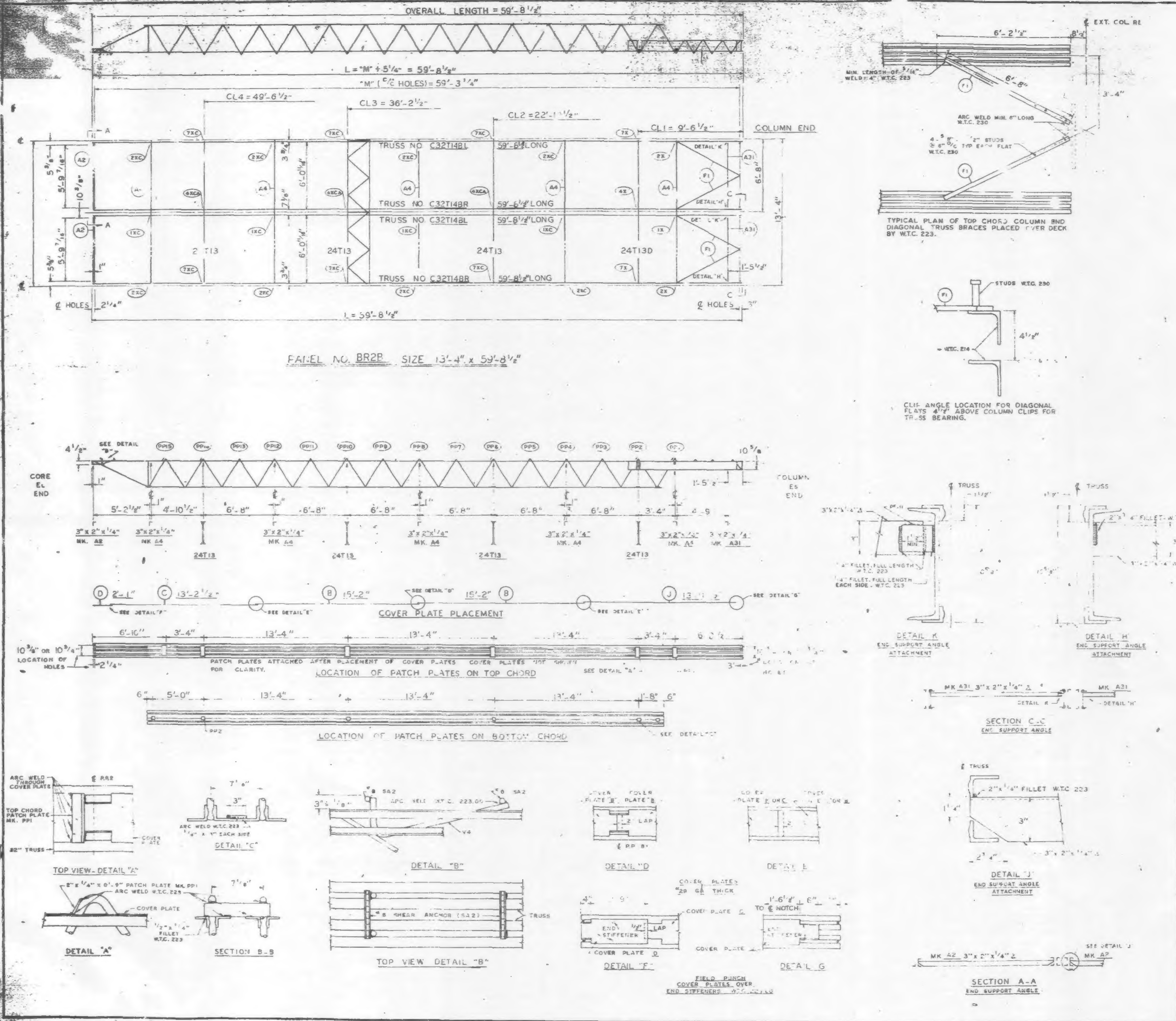
REF. DRWG.

7-AB3-25	10-4-68
7-AB3-24	8-6-68
7-AB1-13	10-4-68
7-AB2-5	7-22-68
7-AB2-6	10-4-68

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 25 (NORTH & SOUTH) 59 (NORTH)
⚠1
PANEL A2A - 20' x 59'-9"

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. ____ PLATE ____
APPROVED FOR FABRICATION [signature] FOR P.O.N.Y.A. DATE [illegible]
DRAWN BY [illegible] DATE DEC. 5, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE ____
CHECKED BY T.R. [illegible] DATE DEC. 5, 1968
IN CHARGE OF PROD. [illegible]
LACLEDE STEEL CO.
DETAILED BY A. [illegible]
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. FP A2A



REQUIRED MATERIAL PER PANEL				REF.
MATERIAL	MK.	PCS.	SIZE	DRWG.
FLOOR TRUSSES	T14BL	2	C32T14BL x 59'-8 1/2"	ST 214BL
	T14BR	2	C32T14BR x 59'-8 1/2"	ST 214BL
BRIDGING TRUSSES	T13	3	24T13 x 13'-3"	BT 213
	T13D	1	24T13D x 13'-3"	BT 213D
3" x 2" x 1/4" ANGLE	A2	2	3"x2"x1/4"x5'-11 9/16"	ST 403
	A4	5	3"x2"x1/4"x13'-3"	ST 403
	A31	2	3"x2"x1/4"x5'-8 1/8"	ST 410
CLOSURE PLATES	PF-11	2	3" x 1/4" x 0'-2 3/8"	ST 412
DIAGONAL FLATS	F1	4	1 1/2" x 5/8" x 6'-8"	ST 402
PATCH PLATES	PP1	12	2" x 1/4" x 0'-9"	ST 400
	PP2	12	3" x 3/8" x 0'-3"	ST 400
COVER PLATES	B	4	9" x .0135" x 15'-2"	ST 303
	C	2	9" x .0135" x 13'-2 1/2"	ST 303
	D	2	9" x .0135" x 2'-1"	ST 303
	J	2	9" x .0135" x 13'-11 1/2"	ST 304
ANGLE CLIPS	C1	16	2" x 1 1/2" x .25" x 6"	ST 400
#8 SHEAR ANCHOR	SA2	4	#8 REBAR x 0'-9"	ST 400
CONNECTION BAR	CB1	5	1" ø x 1'-3"	ST 400
CONNECTION PLATES	P1	4	3 1/2" x 3/8" x 0'-6 1/2"	ST 400
	P2	4	4 1/2" x .39" x 0'-9"	ST 400
	P3	4	4 1/2" x .39" x 1'-0"	ST 400
	P9	4	3" x 1/2" x 1'-2"	ST 409

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
LETTERS AND NUMBERS IN ELLIPSES INDICATE CONNECTION DETAILS, ie., (1X)
ALL CONNECTION DETAILS FOR FLOORS 25, 59 & 92 ARE SHOWN ON SHEETS CD 210 THRU CD 229.
UNLESS OTHERWISE SHOWN ALL CONNECTION ARC WELDS SHALL BE 1" x 1/4" FULL THROAT FILLET.

A = 1/4"
B = 1/4"

NO.	DATE	REVISION	BY

REF. DRWG.

7-AB3-27	10-4-68
7-AB1-13	10-4-68
7-AB2-8	7-22-68
7-AB4-28	7-22-68
SA-124	10-11-68
7-AB3-24	8-15-68

VOID

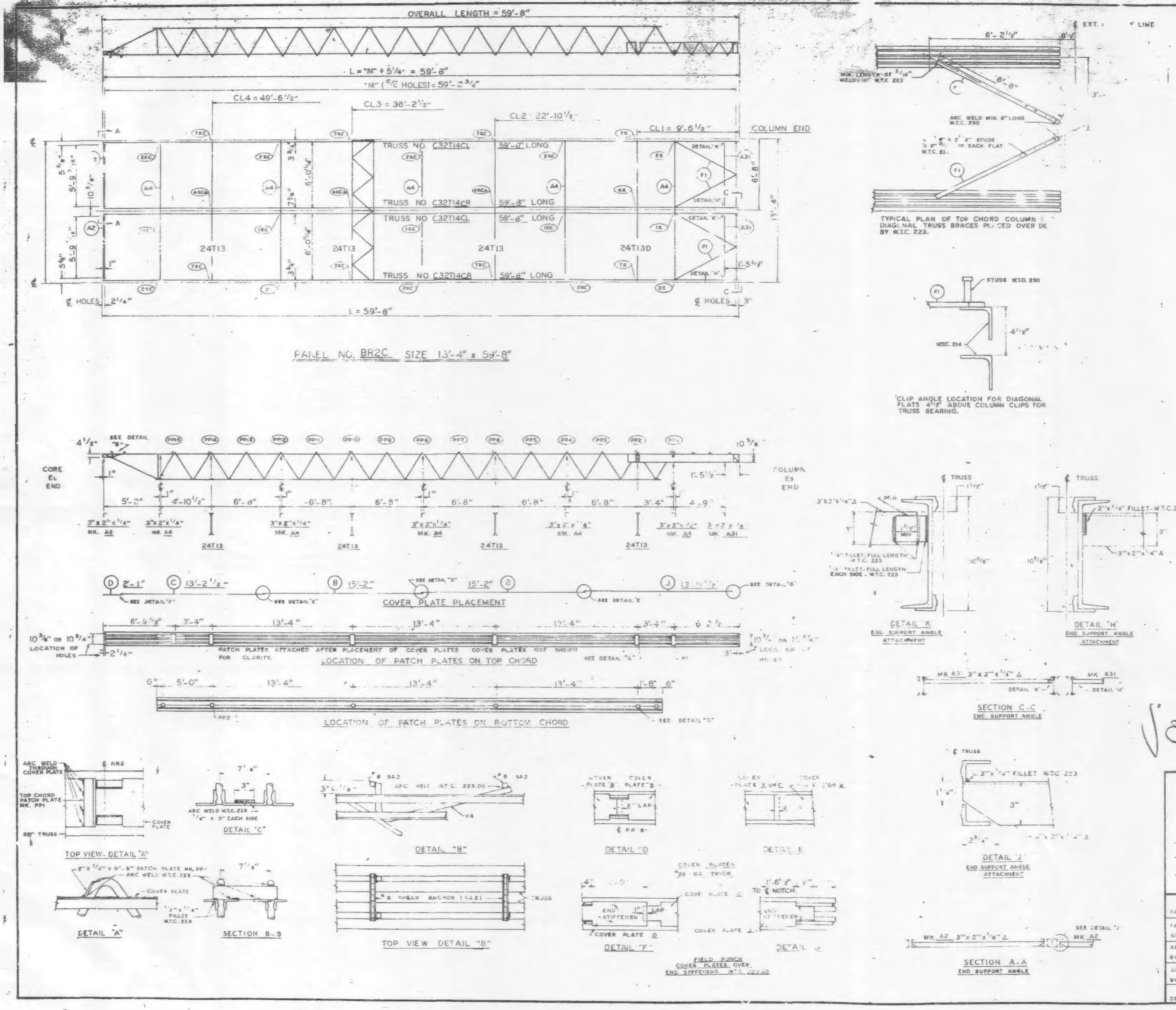
FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 92 (NORTH)

PANEL BR2B - 13'-4" x 59'-8 1/2"

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO. 7-AB3-27	PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A.	DATE	DRAWN BY [signature] DATE APRIL 28, 1969	
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE APRIL 28, 1969	IN CHARGE OF PROC. DEV.
DETAILED BY A.C. WEBER		FABRICATION CONT. NO. W.T.C. 221	SHEET NO. FP BR2B



REQUIRED MATERIAL PER PANEL				REF.
MATERIAL	MK.	PCS.	SIZE	DRWG.
FLOOR TRUSSES	T14CL	2	C32T14CL x 59'-8"	ST 214CL
	T14CR	2	C32T14CR x 59'-8"	ST 214CL
BRIDGING TRUSSES	T13	3	24T13 x 13'-3"	ST 213
	T13D	1	24T13D x 13'-3"	ST 213D
3" x 2" x 1/4" ANGLE	A2	2	3" x 2" x 1/4" x 5'-11 9/16"	ST 403
	A4	5	3" x 2" x 1/4" x 13'-3"	ST 403
	A31	2	3" x 2" x 1/4" x 5'-8 1/8"	ST 410
CLOSURE PLATES	PF-11	2	3" x 1/4" x 0'-2 3/8"	ST 412
DIAGONAL FLATS	F1	4	1 1/2" x 5/8" x 5'-8"	ST 402
PATCH PLATES	PP1	12	2" x 1/4" x 0'-9"	ST 400
	PP2	12	3" x 3/8" x 0'-3"	ST 400
COVER PLATES	B	4	9" x .0135" x 15'-2"	ST 303
	C	2	9" x .0135" x 13'-2 1/2"	ST 303
	D	2	9" x .0135" x 2'-1"	ST 303
	J	2	9" x .0135" x 13'-11 1/2"	ST 304
ANGLE CLIPS	C1	16	2" x 1 1/2" x .25" x 6"	ST 400
#8 SHEAR ANCHOR	SA2	4	#8 REBAR x 0'-9"	ST 400
CONNECTION BAR	CB1	5	1" ø x 1'-3"	ST 400
CONNECTION PLATES	P1	4	3 1/2" x 3/8" x 0'-6 1/2"	ST 400
	P2	4	4 1/2" x .39" x 0'-9"	ST 400
	P3	4	4 1/2" x .39" x 1'-0"	ST 400
	P8	4	3" x 1/2" x 1'-2"	ST 409

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
LETTERS AND NUMBERS IN ELLIPSES INDICATE CONNECTION DETAILS, ie., (1X)
ALL CONNECTION DETAILS FOR FLOORS 25, 59 & 92 ARE SHOWN ON SHEETS CD 210 THRU CD 229.
UNLESS OTHERWISE SHOWN ALL CONNECTION ARC WELDS SHALL BE 1" x 1/4" FULL THROAT FILLET.

NO.	DATE	REVISION	BY

REF DRWG.

7-AB3-27	10-4-68
7-AB1-13	10-4-68
7-AB2-8	7-22-68
7-AB4-28	7-22-68
SA-124	10-11-68
7-AB3-24	8-15-68

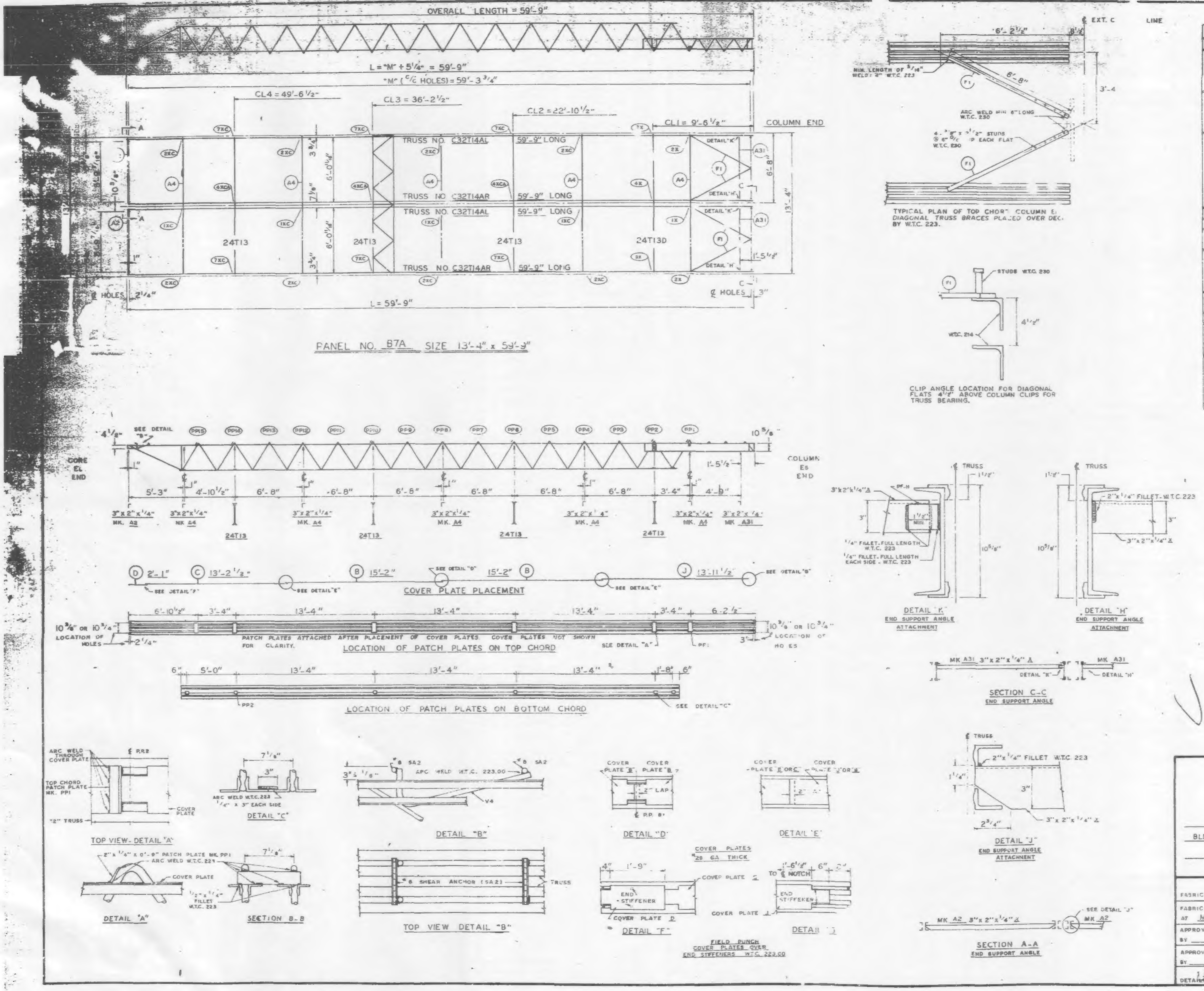
VOID

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. A FLOORS 59 & 92 (SOUTH)

PANEL BR2C-13'-4" x 59'-8"

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB3-27 PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
DRAWN BY [illegible] DATE APRIL 28, 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.N. CHURA DATE APRIL 28, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO W.T.C. 221
SHEET NO FP BR2C



REQUIRED MATERIAL PER PANEL				REF.
MATERIAL	MK.	PCS.	SIZE	DRWG.
FLOOR TRUSSES	T14AL	2	C32T14AL x 59'-9"	ST 214AL
	T14AR	2	C32T14AR x 59'-9"	ST 214AR
BRIDGING TRUSSES	T13	3	24T13 x 13'-3"	BT 213
	T13D	1	24T13D x 13'-3"	BT 213D
3"x 2"x 1/4" ANGLE	A2	2	3"x2"x1/4"x5'-11 9/16"	ST 403
	A4	5	3"x2"x1/4"x13'-3"	ST 403
	A31	2	3"x2"x1/4"x5'-8 1/8"	ST 410
CLOSURE PLATES	PF-11	2	3" x 1/4" x 0'-2 3/8"	ST 412
DIAGONAL FLATS	F1	4	1 1/2" x 5/8" x 6'-8"	ST 402
PATCH PLATES	PP1	12	2" x 1/4" x 0'-9"	ST 400
	PP2	12	3" x 3/8" x 0'-3"	ST 400
COVER PLATES	B	4	9"x .0135" x 15'-2"	ST 303
	C	2	9"x .0135" x 13'-2 1/2"	ST 303
	D	2	9"x .0135" x 2'-1"	ST 303
	J	2	9"x .0135" x 13'-11 1/2"	ST 304
ANGLE CLIPS	C1	16	2"x 1 1/2"x .25" x 6"	ST 400
#8 SHEAR ANCHOR	SA2	4	#8 REBAR x 0'-9"	ST 400
CONNECTION BAR	CB1	5	1" ø x 1'-3"	ST 400
CONNECTION PLATES	P1	4	3 1/2"x 3/8"x 0'-6 1/2"	ST 400
	P2	4	4 1/2" x .39" x 0'-9"	ST 400
	P3	4	4 1/2" x .39" x 1'-0"	ST 400
	P9	4	3" x 1/2" x 1'-2"	ST 409

ALL ARC WELDS TO BE MADE WITH LOW HYDROGEN RODS IN THE E-70 SERIES OR EQUAL.
LETTERS AND NUMBERS IN ELLIPSES INDICATE CONNECTION DETAILS, ie., (1X).
ALL CONNECTION DETAILS FOR FLOORS 25, 59 & 92 ARE SHOWN ON SHEETS CD 210 THRU CD 229.
UNLESS OTHERWISE SHOWN ALL CONNECTION ARC WELDS SHALL BE 1"x 1/4" FULL THROAT FILLET.

A = 1/4"
B = 1/4"

NO.	DATE	REVISION	BY

VOID

REF. DRWG.

7-AB3-28	10-4-68
7-AB1-13	10-4-68
7-AB2-8	7-22-68
7-AB4-28	7-22-68
58-124	3-24-68
7-AB3-24	8-15-68

FLOOR PANEL DETAILS
FOR
WORLD TRADE CENTER - N Y C.
FOR
THE PORT OF NEW YORK AUTHORITY

BLDG. B FLOORS 25 (EAST & WEST) 59 (WEST)

PANEL B7A-13'-4" x 59'-9"

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS		DESIGN DRAWING NO 7-AB3-28 PLATE	
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A.	DATE	DRAWN BY [illegible] DATE MAY 8, 1969	
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR	DATE	CHECKED BY T.M. CHURA DATE MAY 8, 1969	IN CHARGE OF PROD. DEV.
DETAILED BY A.G. [illegible]		FABRICATION CONT NO W.T.C. 221	SHEET NO FP B7A